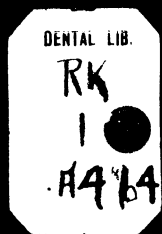
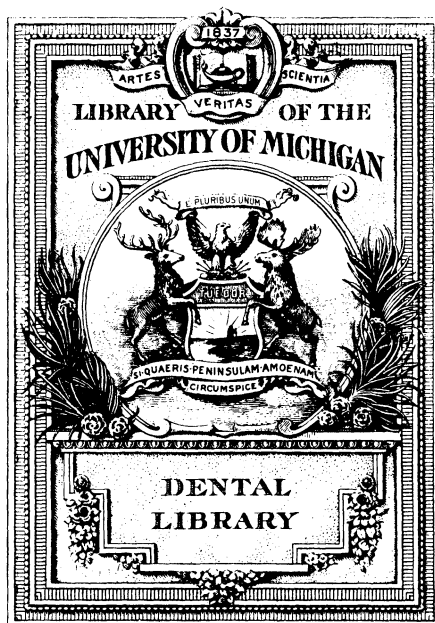


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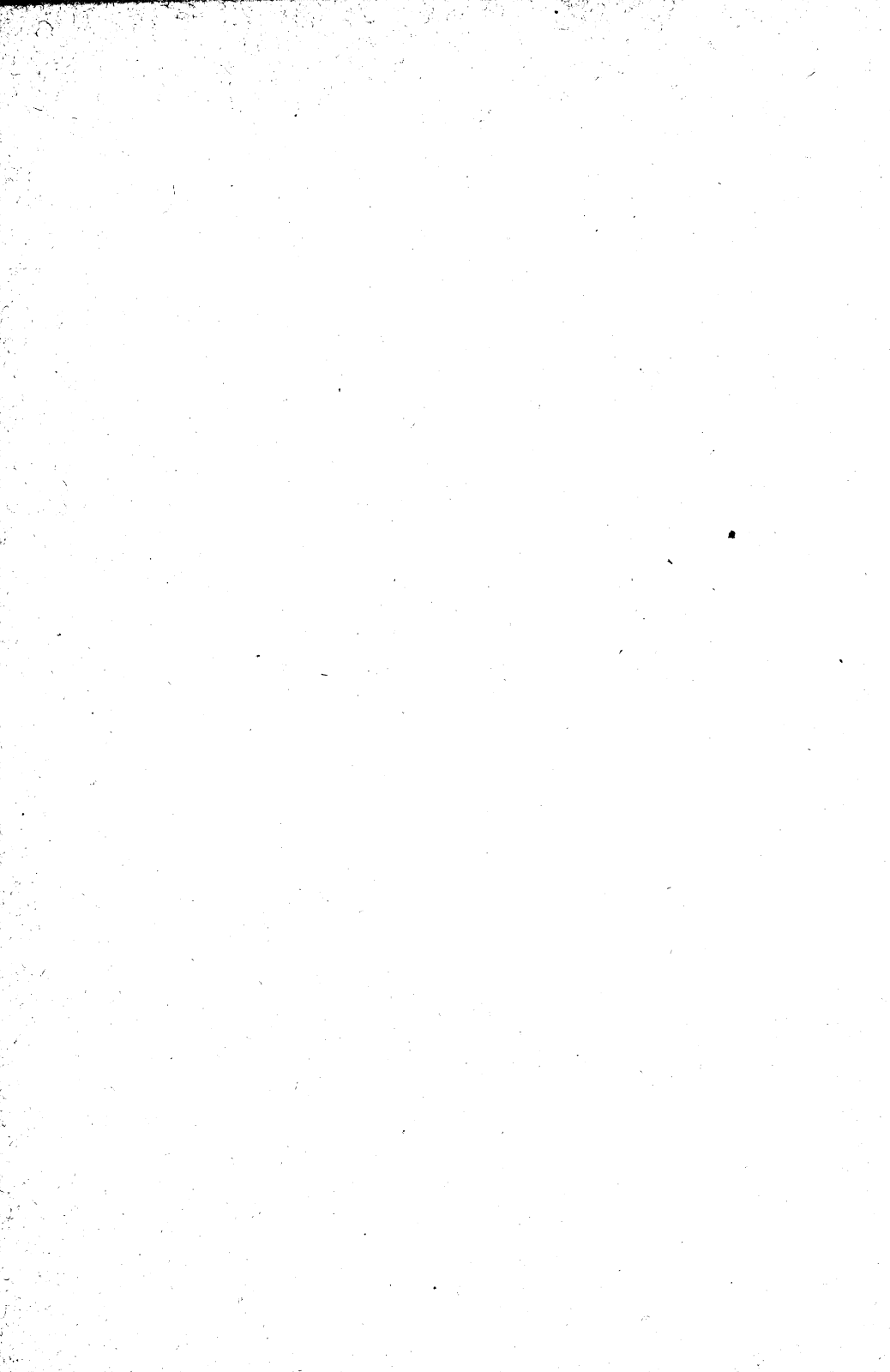
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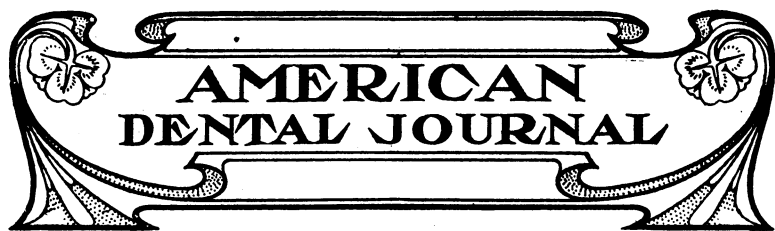
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### TABLE OF CONTENTS.

#### Progressive Course of Practical Instruction

Orthodontia, By J. N. McDOWELL, D. D. S.	- - - - -	1
Prosthetic Dentistry, By B. J. CIGRAND, B. S., M. S., D. D. S.,	- - - - -	9
Dental Therapeutics, By GEORGE W. COOK, B. S., D. D. S.,	- - - - -	14
Operative Dentistry, By R. B. TULLER, D. D. S.,	- - - - -	20

#### Original Contributions

Toothsome Topics, By R. B. TULLER, D. D. S.,	- - - - -	25
---	-----------	----

Editorial	- - - - -	31
-----------	-----------	----

#### Abstracts and Selections

The Construction of an Artificial Denture Upon a Metal Base, By DR. L. P. HASKELL	- - - - -	34
--	-----------	----

Society Announcements and Reports of Meetings	- - - - -	38
---	-----------	----

Necrological	- - - - -	40
--------------	-----------	----

Miscellaneous	- - - - -	44
---------------	-----------	----

Personal and General	- - - - -	48
----------------------	-----------	----

Want Ads	- - - - -	52
----------	-----------	----

Index to Advertisers	- - - - -	53
----------------------	-----------	----

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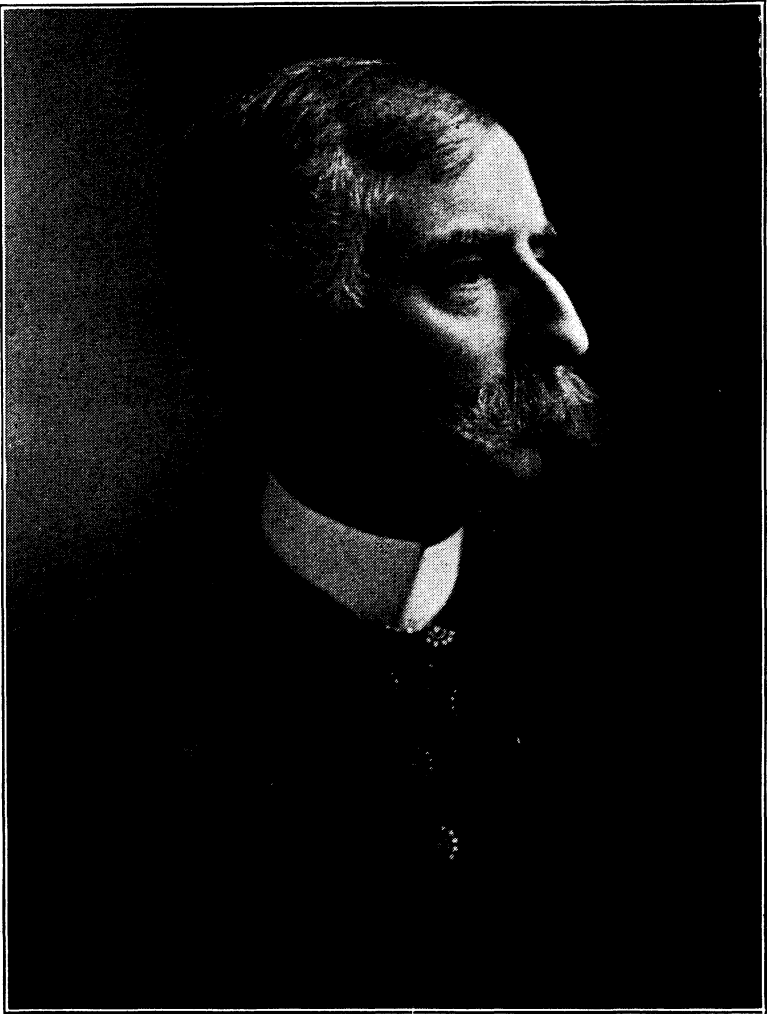
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# PROGRESSIVE COURSE OF PRACTICAL INSTRUCTION

## ORTHODONTIA.

BY J. N. M'DOWELL, D. D. S.,  
PROFESSOR OF ORTHODONTIA, COLLEGE OF DENTISTRY, UNIVERSITY OF  
ILLINOIS.

### CHAPTER XIII.

#### RETENTION OF ELONGATED TEETH.

In drawing down cuspids, centrals or laterals, they should be drawn well down into position and retained there with at least three bands soldered together.



Fig. 1.

In the case of an adult, where considerable bone has been plowed through and the tooth drawn inward or outward as well as downward, it is best to involve at least one tooth on each side to aid in retaining same, as Fig. 7 last month. Do not depend upon the occlusion to hold the tooth in place at first.

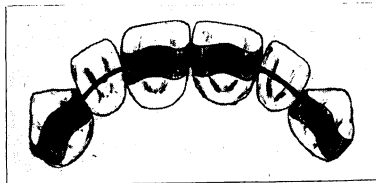


Fig. 2.

In case of Fig. 1, where the centrals have been drawn together, and space made for the laterals, it is best not only to solder the central bands together, but to use the cuspid teeth as anchorage by soldering a wire to the distal surface of the bands, running the wire backward to the lingual surface of the cuspid bands and soldering. (Fig. 2.) This will keep the central from separating and filling up the space for the lateral. Of course, there is an objection to the use of too



Fig. 3.

many bands, especially among young ladies, but it must be remembered that the teeth that have been drawn inward or outward and downward and rotated have a tendency to separate and move outward and rotate again, and, in preference to putting on a regulating

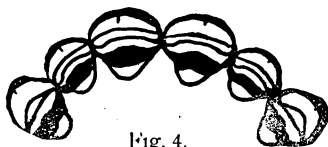


Fig. 4.

appliance again, it is well to use the best means to prevent the movement of the teeth until firm in position.

#### RETAINING TEETH DRAWN TOGETHER.

In case of Fig. 3, where the centrals have been drawn together and backward, it is best to use bands soldered together (as in Fig. 4).

In a case like Fig. 5, where two supernumerary teeth were first extracted, then the separated centrals drawn together, then followed by

the right lateral, bands were soldered together, with a wire running back to the temporary molar, to hold the lateral forward. (Fig. 6.)

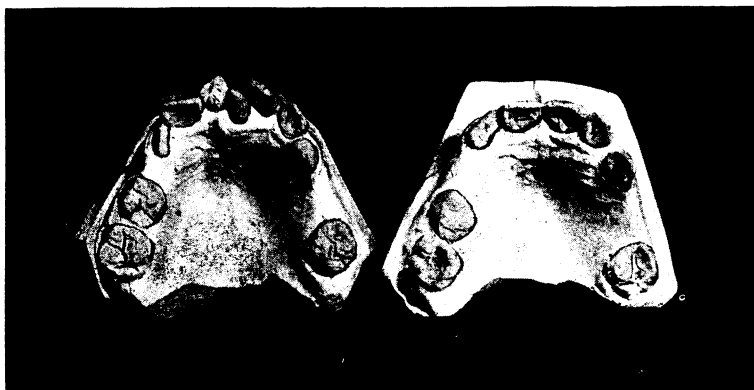


Fig. 5.

In Fig. 7 the centrals are not only drawn together, but moved forward as well. The tendency here is not only to force the lower back,

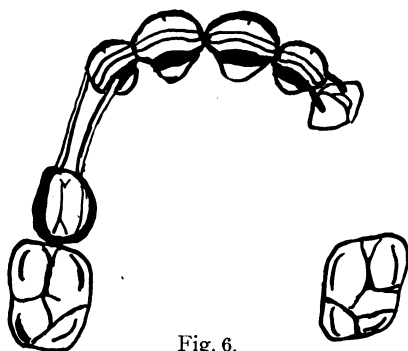


Fig. 6.

but undoubtedly to move to one side if only the centrals were banded without support. To gain support for the centrals and at the same time sustain the space for the laterals, bands are made for the cuspids and a wire soldered to the lingual surface of the cuspids and central bands, with spurs resting against the temporary molars; the central bands are soldered together. (Fig. 8.) This appliance should be worn until the laterals are sufficiently erupted to sustain themselves in position.

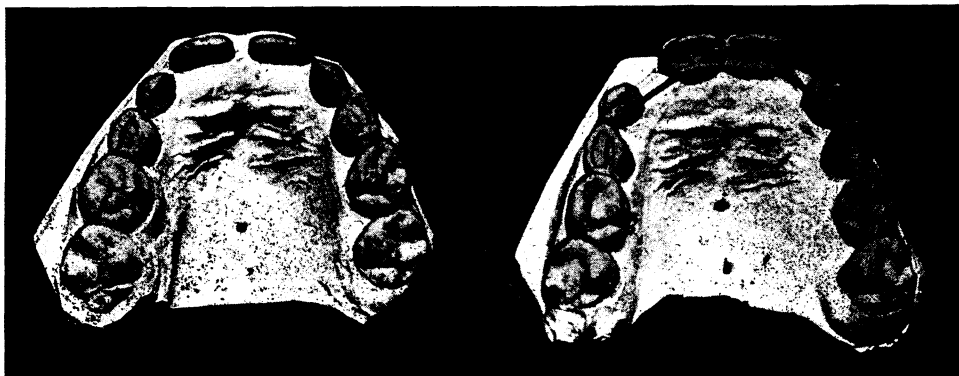


Fig. 7.

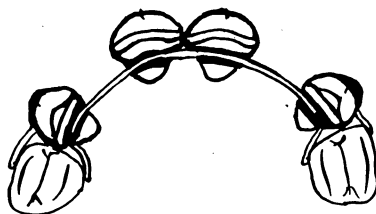


Fig. 8.

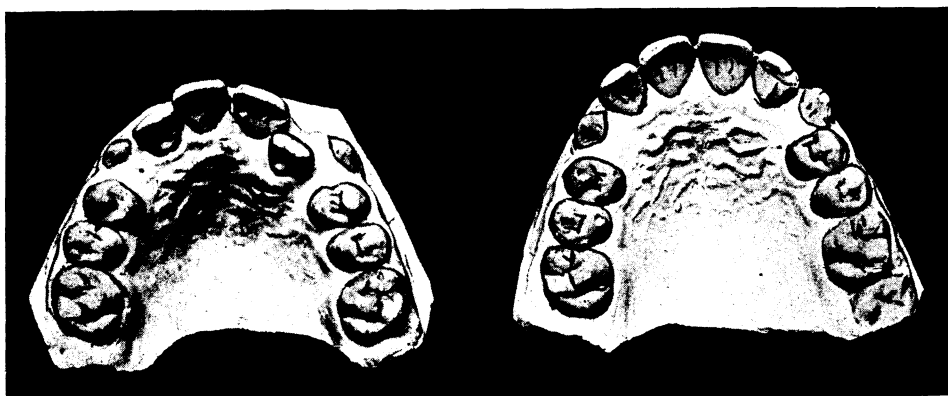


Fig. 9.

RETAINING TEETH THAT HAVE BEEN MOVED FORWARD.

As retainers are worn simply for the purpose of preventing teeth that have been moved from returning to their former position, the model of all cases taken before treatment began should be carefully

studied so that the retainer can be put on in the best way to antagonize a tendency of the teeth to return to their former position.

In Fig. 9 the laterals have been moved forward into alignment, making room for the cuspids to come down in position. The centrals have also been drawn together. The retainer is worn here to sustain

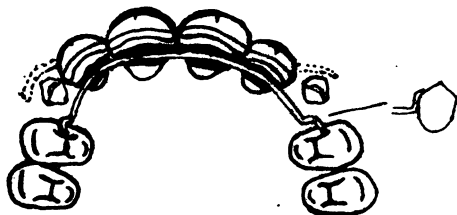


Fig. 10.

the space for the cuspids and prevent the laterals from moving back. A simple but proficient retainer here is to band the laterals, soldering 18-gauge wire to the lingual surface, passing back to the mesial surface on each side of the first bicuspid, the wire bent in the form of a right angle step and resting against the bicuspid. (Fig. 10.) This



Fig. 11.

bending at a right angle prevents the teeth from moving backward and also prevents the wire from being pressed downward into the gum tissue. Bands can be made for the bicuspid and this wire soldered directly to them, if necessary. As the cuspids come down into position in time, this wire will interfere with their eruption; then it is best to remove the wires resting against the cuspids and solder a spur

on the laterals to rest on the cuspid to keep the lateral out and the cuspid in, as shown by dotted lines. (Fig. 10.)

In the case of Fig. 11, where the upper incisors have been moved out from the lower, the method of retention is the same as in Fig. 10.

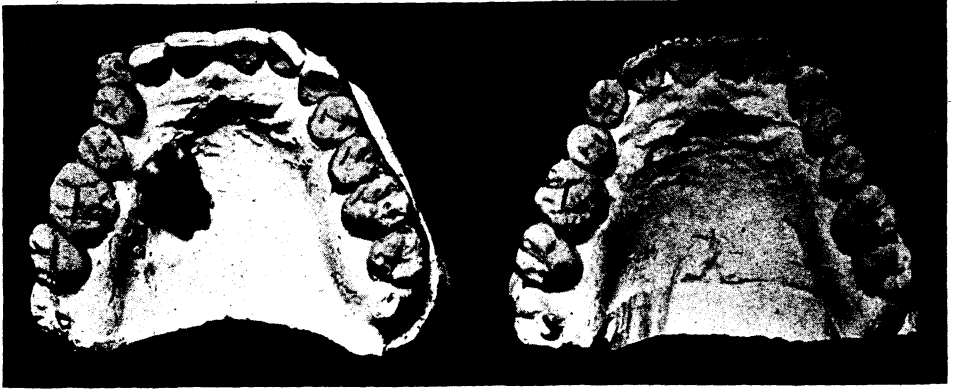


Fig. 12.

Here, also, it is necessary to retain the space for the cuspids and to relieve the stress from the lower teeth. In case any of the teeth are rotated it would be necessary to band all rotated teeth and solder these bands together and to the wire on the lingual surface.



Fig. 14.

#### RETENTION OF TEETH THAT HAVE BEEN MOVED BACKWARD.

In case of Fig. 12, where the cuspid has fully erupted and a bicuspid extracted to give space to draw it backward, it is best to retain it in position by banding a tooth on each side and soldering all three bands together, as in Fig. 13. In cases like Fig. 14, where a super-



numerary was extracted, the central moved backward and the lateral moved forward, reciprocal anchorage can be used by banding the two centrals and lateral, soldering bands together to hold the centrals that



Fig. 15.

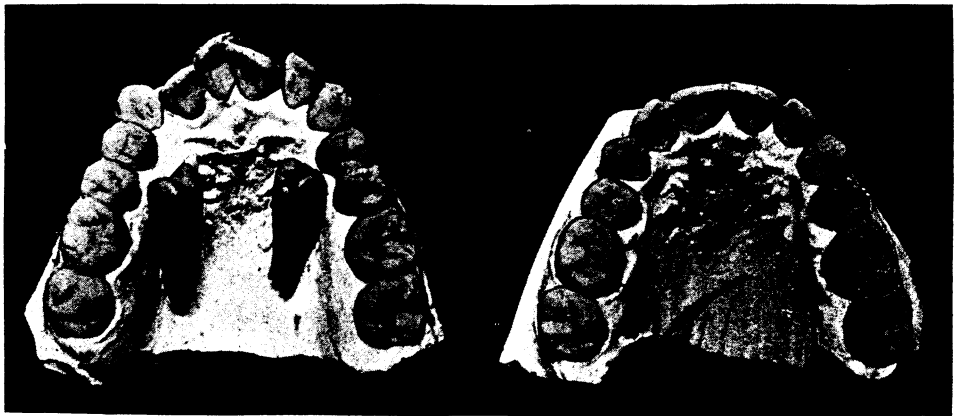


Fig. 16.

have been moved backward, and the laterals that have been moved forward, then rest a spur against the lingual of the other lateral and run a piece of wire back against the first bicuspid to sustain the space for the cuspid to come down. (Fig. 15.)

In cases like Fig. 16, where the first bicuspids have been extracted, the centrals and laterals rotated backward, as well as the cuspid

being drawn backward, it is best to use the bands on all the teeth soldered together as far as the second bicuspid, then in four or

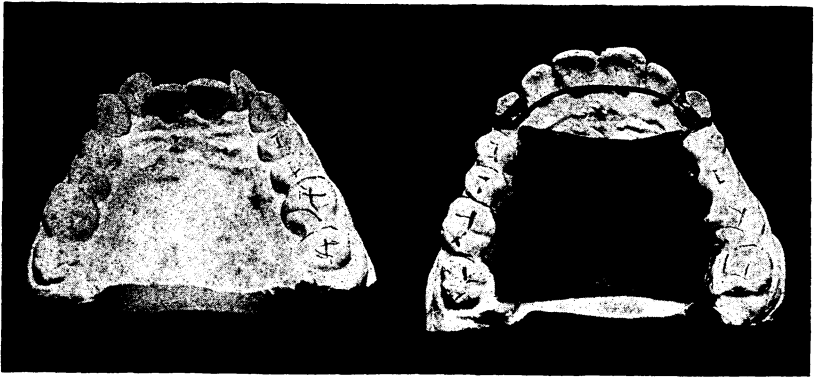


Fig. 18.

five months use the Case retainer, as shown in Fig. 17. Retainers in a case of this kind should be worn from one to two years, and it is best to wear the appliance that accomplished the moving at least a

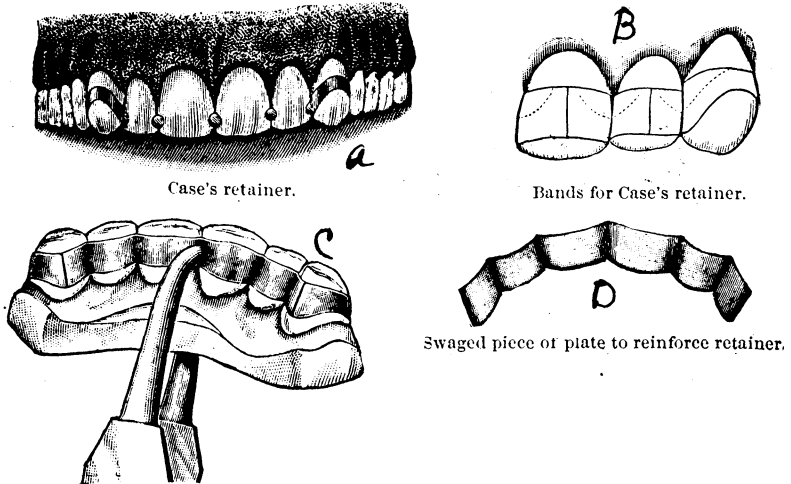


Fig. 17.

month before putting on the retainer. In case it is desired to retain the lateral halves of the arch that have been expanded laterally, it is best to use a vulcanite plate, as in Fig. 18.

(To be continued.)

## PROSTHETIC DENTISTRY.

---

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CHAPTER XXXI.

It is my purpose to suggest a method of making repair work of both crown and bridge work simpler, or, better still, to show a device or tooth form which will prove sufficiently strong to resist the stress of mastication, hence dispense with the troublesome proposition of repair work. In a college clinic and class demonstration the forms were made of vulcanite to illustrate the principle and show the means of attachment as well as method of construction. At this time I have the teeth in the true or porcelain form and a few test cases indicate that this method can be resorted to in certain cases.

The first specimens I formed by taking the ordinary plate tooth, cutting off the platinum pins and baking a triangular form of porcelain to the palatal surfaces of the plate tooth. Later I purchased a porcelain stick, sold by S. S. White Dental Manufacturing Company, for porcelain inlay work and smoothed one portion of this stick and cut it off to correspond to length of my porcelain tooth, as shown in Figs. 1 and 2. I soon learned that this would require too much gold to make the case and also that my porcelain would be weak where the stick of porcelain was added, and baked a tooth of the exact pattern desired, making the dovetail more pronounced, and thus adding more strength to the porcelain. In addition to this I formed the triangular portion flat and this gave me better opportunity to make the case restore the lingual contour of the anterior six teeth. (Figs. 3 and 4.)

The bridges, as mostly constructed, have a shapeless lingual aspect, generally a smooth curve of gold, and no attempt is made to reproduce the palatal surfaces of these teeth, and this contour is an attribute of comfort to the tongue, as shown in Fig. 8.

Fig. 9 gives a view of this tooth when used as a Richmond. The great disadvantages of the old Richmond, namely, frail facing and great bulk of gold solder, are here completely overcome. The porcelain is in bulk—always assurance of strength, and the gold sparingly employed, yet yielding all the necessary support, as illustrated in Fig. 8.

In the event this tooth is required on a partial gold plate, the construction is also simple, as clearly shown in Fig. 10.

Even the short-bite variety, which so completely taxes the ingenuity of the prosthetist, is readily overcome, as is demonstrated by Fig. 11. The anchorage may seem weak, but no ordinary mandibular force will be able to fracture it. Porcelain is able to resist great strain, weight, or even force, when properly protected or in bulk. A given amount of porcelain is strong in just the ratio to its globular conformity. The same amount of porcelain in wafer form would stand but little mechanical abuse, while if rolled into marble form it could be placed into a rifle or cannon and be forced through wood or metal. Just so with the anchorage in the case cited. The porcelain is practically in cubic form and can resist the force of mastication, without fear of dislodgment or fracture. This tooth is especially adaptable in cases of long ridge lap as indicated in Fig. 8 or 11.

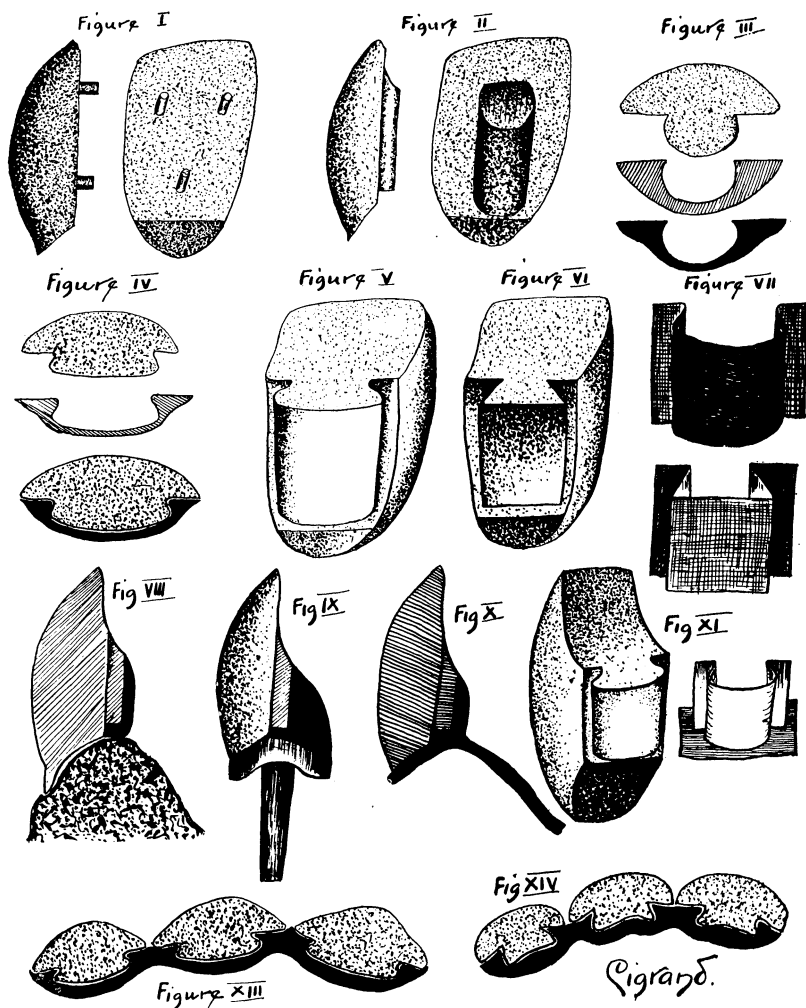
When these teeth are ready to be soldered they appear as Fig. 13 and when soldered as Fig. 14. By this method the porcelain tip or incisal edge is left free and does not become muggy or cloudy by the metal back, usually made of gold, though platinum, too, is used. The methods which have metal backings all have the demerit of interfering with the beautiful and nature-like transparency or translucency of the normal tooth. This dull and lifeless artificial tooth, with its metallic armor, destroys the æsthesia of the finished case. (Figs. 13, and 14 illustrate.) This is one reason why dentists prefer the Davis, Logan and Brewster crowns. Figs. 15, 16, 17. They have no metallic backing.

A method calculated to give you comparative shade of teeth is to get the shade by holding the gold or platinum behind the selected facing; you can then have a faint idea as to the appearance the facing will have in the completed crown or bridge. If this trifling step is overlooked or pronounced unimportant, the penalty of disregarding small things or details will appear as a great error in the final product.

By the method I here advocate the tip of the porcelain tooth is not veneered by metal at the surface, where the greatest vital appearance is required. It matters little what you place behind the thick and strong portion of the tooth, as the bulk of the porcelain precludes the metal reflection, but at the incisal edge, where in all teeth the porcelain is thin, the vital appearance—that wax-like shade—must

be conserved. Hence, by the construction of the tooth I suggest this all important phase is brought to a simple problem.

Aside from the foregoing argument in favor of leaving the



porcelain unobstructed by metal, the next point—not secondary at that—is the avoidance of a gold tip making its appearance. Many a beautiful and perfectly constructed bridge loses its artistic touch by the addition of the gold tip or metallic incisal edge. Figs. 18,

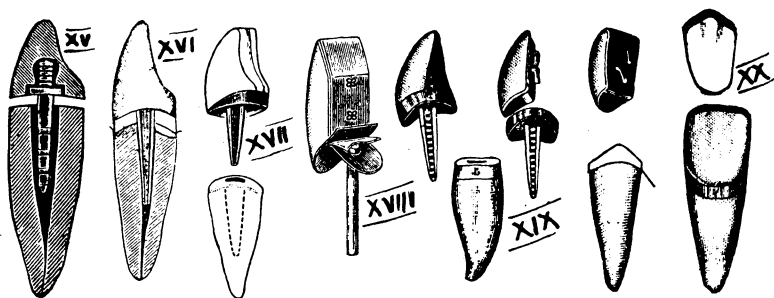
19 and 20.) The patients rebel against their use, though the dentist quiets their further discussion by the remark "that the gold edge shields the porcelain and saves the entire structure." The statement of the operator is doubtless correct, yet it does not satisfy the patron, since it is an emblem of artifice, and that token of anti-divinity is always an objection. People of this day and generation desire naturalness and the divine model is constantly on the pedestal.

Patrons of today prefer to retain natural dental appearances, and dislike very much to be obliged to exhibit the too brilliant gold crown. Nature in this particular can not be improved upon, and the practitioners who attempt to add to the beauty of the patient by inserting either a colossal gold filling or a glittering gold crown are certainly blind to the laws of harmony and æsthesia. The method which will permit of a true reproduction of natural appearance and usefulness is indeed the method that will invoke admiration; and if we ever keep in mind lines from Hare, "Art is the work of man under the guidance and inspiration of a mightier power, Nature," we will ever be inspired to copy and design after nature, the soul of God, and can not go far astray from what is right and enduring. And in response to the love which we hold for nature we should be opposed to any unnecessary destruction or uncalled for alteration in shape, color or size of the normal dental organs; and any method which will approximate nature will be welcomed by the better elements of our communities.

Of course, the porcelain tooth, by the method I suggest, does not go through the flame of soldering. The teeth are cemented or vulcanized into their respective gold pockets, which are of unusual size, the dovetail on all teeth being uniform, to correspond with the respective tooth form.

The process of constructing a crown by this method may at first sight appear difficult and even intricate; but I assure you, upon closer acquaintance with the process it will prove to be simple indeed, and appeal to those who intend to avoid the consequences of a repaired crown. By this method we avoid the great display of gold accompanying the "all gold tip," and this, you will observe, is indeed an approach to natural ideals, and it is farthest from my mind to pose as an inventor. It is immaterial, in fact, who has wrought desirable changes; the only question which concerns mankind is, "What worth has the departure; does it lend comfort and assure progress?" If

it has these accompaniments, they are the only elements which appeal to humanity. Personally, we all seek to merit credit for our new ideas, our inventions and improvements, and I dare say our profession liberally credits those who have aided in its rapid evolution. The duplications of inventions, their gradual perfections, is a most interesting theme; the employment of the principle of dovetail is one antedating our present Christian calendar. The use of it in mechanics and dentistry is manifold and I do not intend to convey the impression that its introduction into prosthetics is original with me,



though I believe that its present application in removable porcelain teeth for bridges and gold dentures suggests new possibilities. Hence I have hoped to be understood as not endeavoring to elicit the inference that this deviation from the old path is purely original with me, for few inventions are, since the underlying principles of nearly all which we call new have been understood and brought into practicality at some previous time. For inventions which we think entirely original are but a modification of applied principles. In a liberal profession, such as our calling is, it should not be the purpose of any individual member to attempt to attain prominence by seeking to rob from others that which will assist in bringing to him unworthily even the slightest tribute, and it is in this spirit of fairness that we invite all practitioners to contribute ideas or methods to these chapters. The bicuspsids and molars will be described in the next chapter.

(To be continued.)

**DENTAL THERAPEUTICS.**

---

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## CHAPTER XXXIII.

Thus far in the discussion of the subject of the narcotics of the methane series, more especially those belonging to the alcohol and chloroform group, we have shown how this group has attracted much attention from a clinical as well as an experimental standpoint. But as to how these two agents act upon the physiological animal organism has not been conclusively settled yet, with reference to their true action upon protoplasm in all of its many phases.

Kraepelin's researches have not as yet thoroughly convinced us whether the cerebral processes, especially those portions of the cerebral centers which are supposed to preside over the receptive and intellectual centers, are really weakened by the long and continued use of small quantities of alcohol, the motor centers being increased in their functional activity to a more or less extent. We are not yet able to settle all of these points. There is one point that seems to be pretty definitely settled, referring to alcohol lessening the irritability of the sensory nerve endings, for without question pain is very much lessened even in small doses of this drug.

Baratynsky finds that frogs are first excited and then depressed by many of the compounds in this group, especially in poisonous doses. He further observed that if the anterior portion of the brain was removed the excitement failed to appear; however, the optic lobe of the brain must be left intact. The conclusions of this author is that the excitement is cerebral and due to stimulation.

Dehio and Stewart have demonstrated that in acute stages of alcoholism the cerebral nerve centers show a considerable histological change in the cells. This change is indicated by the fact that the chromatin substance breaks up into granules, which become more or less diffused through the cytoplasm of the cells. These observations are of extreme importance and should be seriously taken into consideration in the systematic study of this agent.

The lower portion of the nerve centers, especially that of the spinal cord, is the first to be affected by alcohol, while that of the



respiratory center is evidently the last to be affected; for it has been observed that respiration continues for a considerable time after the motor centers have been completely paralyzed. The effect that alcohol has upon the respiratory centers is one of considerable importance. As previously stated there are two theories with reference to the action of alcohol; one is that it has a stimulating effect on the nervous system, the other is its depressing effect. If we accept the theory that it is a stimulant its use is contra-indicated when the respirations are deep and regular, but is indicated if the respirations are low and more or less indefinite, while the reverse is true if we accept it as a nerve depressant. Experiments have been carried on with a hope of demonstrating whether or not respiration is increased or diminished when alcohol is taken into the system, but these experiments have not been very satisfactorily interpreted. It has been observed, however, that persons intoxicated have increased respiration, but in the ordinary doses no one has yet established definitely whether or not the respiratory centers are really affected by this agent. The observations made upon this point seem to show that the respirations are perhaps no greater than when food is taken into the stomach.

The next question that is of unusual interest is, What action does alcohol have upon the circulation? Here the same condition exists as of the effects it has on respiration; therefore, shall we accept the stimulating theory or that of depression? In alcoholic intoxication the pulse is more or less accelerated, but the question arises, Is the increased pulse due to excitement rather than the direct action upon the heart? Jacquet has observed that in ordinary doses of alcohol, when the individual is entirely free from excitement the pulse remains about normal. When it is given to animals in small doses the pulse rate is but little disturbed, but when administered in large quantities its effect is very much like that of ether or chloroform. Dieballa found that the quantity of alcohol to affect the frog's heart had to be something like forty-eight times greater than that of chloroform, and to bring the frog's heart to a complete standstill it required about 200 times as much alcohol as it did chloroform. The first effect that is observed with either agent is that the auricular systole is weakened, followed by the ventricular, both cavities becoming more or less distended and the action of the heart becoming slower and slower until a standstill is reached.

According to the best observations alcohol acts upon the muscular fibers of the heart instead of paralyzing the motor ganglia, as is sometimes taught. It has been observed that the skin becomes flushed in alcoholic intoxications. This seems to indicate that there is some vascular action, but at the present time it is quite impossible to say just what this action may be. It would seem from a general appearance that it was due to the dilatation of the superficial blood vessels, but the question arises, Is it a peripheral origin or due to stimulating the vasomotor centers? It is barely possible that the peripheral blood vessels are more or less dilated, but if they are there is but little effect upon the general blood pressure. It has been observed that if a large quantity of alcohol is administered the arterial tension is considerably diminished, which seems to be due, to a very great extent, at least, to a weakening of the vaso-constrictor centers. But these effects are not to be considered in the use of alcohol as a therapeutic agent.

In administering alcohol in case of fever it seems to reduce the temperature, but this effect is more likely due to its diminishing the cerebral excitement rather than acting upon the heart, while in case of shock it more likely increases circulation by local irritation, producing reflexes that keeps up the heart's action rather than the heart's stimulation.

The effect alcohol has upon the digestive apparatus has brought forth more discussion, clinically and experimentally, than any other phase of this subject. The consensus of medical opinion is that small quantities of alcohol before meals increases digestion. Some recommend its use immediately after meals. Its effect in these particular cases is probably due to two things, either it stimulates the glands that produce the ferments in the stomach or it stimulates the absorption of food stuffs. The effects that alcohol have upon the digestive ferments in 5 to 10 per cent solutions outside of the stomach seems to retard their action very much, especially the gastric and pancreatic ferments. Wines and liquors are more effectual in retarding digestion than alcohol. The experiments of Chittenden, Mendel and Jackson have shown that alcohol greatly increases the flow of saliva when taken in moderate doses.

There has been so much discussion, from an experimental standpoint, as to the true value of alcohol in digestive processes, and the question is so unsettled at the present time that it hardly seems

worthy to go into any detailed account. Any one who is specially interested in this phase of the subject will find much valuable material in the original research papers brought out by the above named authors, followed by Brandl, Scanzoni, Farnsteiner, Tappeiner, Klemperer and Batelli, and many other writers who will be referred to in these original papers.

The pharmacological discussion of alcohol as a food stuff has been discussed pro and con by some of the best authorities. Some regard the matter with prejudice from both standpoints. Early observers upon this subject seemed to think that alcohol absorbed from the stomach was exhaled from the lungs, and excreted by the kidneys almost entirely unchanged. As a matter of fact there is not over 5/10 per cent that ever escapes the body in this manner, while about 90 per cent is absorbed by the stomach and bowels, and shows that it has undergone combustion. As we are all aware of the fact that, in the process of combustion, there is more or less energy manifested in such processes, therefore if this energy is in the body as the result of such combustion we can pretty positively state that alcohol can be considered as a food stuff; but as a food material it probably takes no part in the action of proteids, or, in other words, in nitrogenous substance, but it may serve to a more or less extent as a substitute for carbohydrates and fats.

For metabolic purposes alcohol seems to have a direct action upon the protoplasm of the cells, and in an ordinary quantity it is nothing more nor less than a substance that supplies a certain carbon to the process of combustion in the tissues; in other words, it is a food stuff; for in the examination of the oxidizing processes in the tissues the oxygen absorbed and the carbonic acid exhaled corresponds very much in the same way as when food stuff is taken in. In cases where large quantities of alcohol are taken into the system there is an increase of carbonic acid given off, as the result of physical exercise and excitement, which must of necessity be due to a more rapid combustion in the organism.

The best observers claim that the temperature of the body is slightly diminished after alcohol has been taken into the system. This fall of temperature is more likely to be internal than external; for instance, the surface of the skin may register a higher degree of temperature than the internal portion of the body will, as ordinarily takes place when alcohol has been taken internally. The internal

diminution of temperature is due to the regulation of the heat centers of the brain having been rendered less sensitive by the alcohol, while a rise of temperature upon the surface of the body is probably due to dilatation of the superficial blood vessels.

Alcohol as a therapeutic agent has never been very well defined. Its internal use has become recognized only in cases of certain well defined indigestion or lack of proper assimilation of certain carbohydrates. In such cases it is usually administered in the form of wine or brandy, for as such they can be better tolerated. Some cases of indigestion or interferences with assimilation have been materially benefited, while others seem to have derived no beneficial effects from the use of these agents. Alcoholic stimulants are usually administered in cases of shock and hemorrhage due to depression of the heart or central nervous system, for the simple reason that they are looked upon as being very stimulating to these two particular organs. But as we have already said, there is some question as to how much truth there is in its stimulating and depressing effects upon the central nervous system and the heart. As we have previously stated, most likely the effect that we observe as stimulating is due to the irritating action of the alcohol upon the coats of the stomach and intestines. In cases where there is a sudden chill followed by fever, alcohol seems to have some beneficial effects in establishing the peripheral circulation, which in such cases is always diminished with a congestive condition of the internal organs; under such conditions alcohol, usually in the form of brandy, may establish the equilibrium of the circulation. The internal use of alcohol in acute forms of inflammation sometimes has a very beneficial effect, while in others its use seems to have the opposite effect.

In chronic diseases, especially those which are classed as chronic nervous diseases, alcohol seems to give some beneficial results; but its administration in such cases must be followed out with caution lest its effects may be more detrimental than beneficial, especially if the individual is a person who has never been in the habit of using this drug while in health. Alcohol in the form of brandy has been used in large quantities in cases of snake-bites for a great many generations, but there is some question as to its efficiency in either small or large doses in such cases. It is a common practice among

a certain class of people who are desirous for an excuse to take this remedy.

Alcohol has been recommended for certain forms of neuralgia, and in many cases it seems to produce beneficial effects. In case of neuralgia due to calcific degeneration of the pulp of the teeth or to neuralgia produced by a putrescent condition of the pulp, from which the individual has suffered for hours, relief can be produced many times by the moderate use of brandy administered two or three times a day.

There is probably no agent that can be more universally used for cleansing purposes than alcohol. It has the property of breaking up and removing fatty or mucoid substances from the gingival border of the gum tissue and teeth that are to be included in the rubber-dam, when this appliance is to be used, for filling or opening up dead teeth. It has a solvent action upon the putrescent material in root canals, as well as a decided restraining influence on the developmental processes of bacteria. It is an excellent remedy to be applied on burns produced by carbolic acid or any of the phenol derivatives, and if applied to the tissue immediately it arrests its escharotic effect. Many dentists who are in the habit of using alcohol are frequently inclined to be too free with it, pumping it into root-canals, even after all of the moisture has been removed from such canals, and in such cases it may at times become very irritating and produce very much the same condition in the soft tissue as that produced by other irritating agents. Therefore alcohol should be used with the greatest of care. Alcohol may be used with very good success in chronic alveolar abscesses, especially those with fistulous openings, inasmuch as its irritating property will be of sufficient consequence in producing stimulation to the tissue cells and removing certain extraneous matter, such as broken down tissue cells, and many of the bacteria found inhabiting such tissue, all which is very essential in bringing about resoration to the parts.

(To be continued.)

## OPERATIVE DENTISTRY, WITH SERIES OF SHOP TALKS.

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I.

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## THE USES OF GUTTA PERCHA IN OPERATIVE WORK.

It is said that necessity is the mother of invention; but it would be a somewhat difficult matter to invent, with all its peculiar and unique qualities, a substitute for gutta percha.

This is a substance often confounded, in the profession and out, with caoutchouc or India rubber. In a few of its properties it is similar to rubber, but in the main it differs widely.

While the dentist does not use it in extensive quantities, compared with its uses in other arts, he would be most seriously handicapped many times a day if deprived of it. To be sure, some features of it could be in a measure substituted, but in others nothing known would take its place.

Being deprived of it and search being set on foot for a substitute, some other gum might possibly be found to in some measure take its place; but so far nothing very closely approximating its various peculiar qualities has been discovered in nature, nor has anything been invented in combinations.

It is a serious fact that the supply is in danger of exhaustion in the near future, since its extensive use in the various arts, and especially in the rapidly increasing demands for it in electrical devices in late years, far exceeds what may be secured in a way consistent with preservation of the source of supply. In fact the only manner of securing the substance, it seems, is in cutting down the tree and removal of the bark. The only thing that stands in the way of the entire destruction of the limited number of trees producing this gutta or gum is the fact that they are of no value as a source until twenty-five or thirty years old, hence the younger trees escape and are drawn upon only when they have reached the proper age. There is, however, no provision among the people where these peculiar trees grow, for the future. No young trees grow except those which

nature has planted. The area in which the percha grows seems to be limited to the Malayan archipelago. Unless something is done to reproduce them it is only a question of time when there will be none left.

Gutta percha, when secured from the middle bark of the felled tree, is of a milky sort of consistency, which in time, if not checked, will resolve itself into a hard, invaluable resin. The checking is done soon after it has been gathered, by boiling it; after which it becomes hard, tough and leathery, which property it retains indefinitely at an ordinary temperature, never becoming more dense or brittle except by some treatment when desired.

It is easily softened at less than boiling temperature, when it may be modeled or molded in any desired form, which it will retain when cool.

For temporary fillings in teeth, and sometimes as reasonably permanent ones, it is highly appreciated by the dentist. So long as it remains in a properly prepared cavity it hermetically seals it and prevents further decay. By occasional renewals, cavities not exposed to too much wear and tear may be kept sealed and secure from further decay indefinitely. Water has no appreciable deleterious effect on it, for a very long time at least, but the saliva of the mouth has a tendency to destroy its tough leathery qualities in the course of a few months. And even at that, it will often remain as a good preservative filling for several years where wear does not come upon it.

The excellent and unique qualities of gutta percha may be easily injured or entirely destroyed by overheating, which many dentists do by holding it in a flame. Its best qualities are preserved by warming or heating it gently on a slab of glass, porcelain, or soap-stone (not in a bare flame), raising the temperature only enough to soften properly for use. The ordinary pink base plate sheets supplied to dentists is found very excellent for all around dental uses, though its combination with some other substances gives something better adapted to mere temporary stopping. White gutta percha, or grayish white, is also produced for dental uses, and is very applicable for use in front teeth when gutta percha is indicated.

In making gutta percha fillings the substance, as has been said, should be warmed on a slab, and then handled with slightly warm or cold instruments. Hot instruments are apt to stick and drag. There is some skill to be attained in inserting, shaping and trimming a gutta

percha filling if done deftly and quickly, and the soft material and cool instrument is the desideratum; following, however, with a warm instrument to trim away surplus and around margins if necessary.

Filling roots with gutta percha cones has become almost a universal practice with dentists for years in the great majority of cases. What other substance for a cone fills the requirements of the operator so well? Of course, there are some departures in some special cases, and on the part of some operators, but the gutta percha cone will long be an essential in root filling.

When these cones can not be carried and placed with pliers conveniently, take a root plugger and, first bending the shank as desired, heat the point of instrument and stick cone onto it in line with the direction of the point, and when cool enough place where desired. If rightly done it will not drag back when plugger is withdrawn. Usually the butt end of cone sticks up (or down) out of the root. Blow a hot air blast on it with chip blower and then force it home with cool plugger. After it has been driven well into the root, the point of the plugger may be warmed and thrust in again to insure thorough condensation in root and contact with root walls.

Occasion frequently arises for the removal of a root filling. This may be done frequently by thrusting a hot root plugger point into the gutta percha in the root, allow it to cool a little, when the gutta percha will often come away almost entirely on withdrawal of the instrument. What remains may be worked out by softening with chloroform and the use of a broach.

Many dentists have a root drying instrument—a tapering copper or silver wire or broach extending from a copper bulb, which, when heated, holds the heat and keeps the wire hot. This may be used, in some cases, pushed hot up into the root, and then withdrawn, bringing away some, if not all, of the gutta percha. In this connection, the writer would like to emphasize the choice of pink cones to fill roots in preference to white, for this reason: When occasion comes to remove one, to open root for treatment or otherwise, the pink is a guide and conveys a knowledge to the operator that a white—gray-white, nearly the color of the tooth—does not. Many a dentist has sworn at the “other fellow,” mentally at least, when he is looking for the gutta percha root filling that must be taken out to be able to treat a sore tooth, and is not readily able to detect it. A root drill, perchance, has to be used. The debris of a gray-white filling and that



of the tooth substance itself look very much alike. Pink debris coming away is always an assurance that one is following the canal and not boring through the side.

Gutta percha has been very satisfactorily used for years in setting crowns and bridges, and recently a gutta percha outfit has been gotten out for this purpose, and the gutta percha improved by making it a little harder when set and less liable to yield; at the same time it softens a little more readily and completely when putting on a crown or bridge.

The way to use gutta percha in this connection is to spread it on where desired as one would do with cement. In case of a dowel, wrap some gutta percha shreds around it. When a crown or bridge has been properly heated to have gutta percha soft enough, it should be placed first with roots *wet* and pressed hard to place. After cooling it may be removed and surplus removed. If it did not go well to place, it should be heated as before and again forced up. When it goes to place to satisfaction, it may be removed and, while warming up again, the roots should be carefully dried and treated to a layer of rather thin chlora-percha, and chloroform allowed to evaporate some. Then with piece pretty warm crowd again hard to place, and hold it or allow patient to close on it and hold until gutta percha is reasonably hard. A crown or bridge set as above noted rarely or never comes off accidentally, but may be well warmed up and removed without trouble if desired.

Now, there are certain forms of inlays with large cavity surface and approved shape and dimensions that may be safely set with gutta percha. This may not be done with contours standing out beyond margins with small cavity contact. A thin layer of gutta percha would have very little strength if a pull came on it directly as in case of a contour, noted above, but in a deep three or four-walled cavity in a molar, the gutta percha would seal and wedge the inlay in in certain favorable cases so it could not be easily dislodged.

It would be well to have both the walls of cavity and the inlay roughened and under cut, just before setting.

Gutta percha takes a splendid impression of a cavity, in many cases, for the making of a die in which to swage an inlay matrix.

The process is to warm up the gutta percha, using, as near as one may judge, about the quantity needed to fill the cavity and extend a little all around beyond the margins, with bulk enough to retain the shape secured after cooling, the latter to be hastened by a stream of

cold water, or an instrument of some bulk dipped in cold water and passed over the gutta percha.

If the cavity be between teeth it is well to adjust an interproximal matrix, but it should be bent away from the cavity so as not to obscure it or prevent the easy introduction of the gutta percha.

When the substance is hardened so it will not be distorted in removing, remove the interproximal matrix first. This will allow a little play of the gutta percha, or a slight movement towards the adjoining tooth, and reduce the friction which otherwise would hold with greater tenacity. In some instances a specially thick piece of metal (copper strips of several thicknesses should be at hand for the purpose) should be used for the interproximal matrix, so that in its removal sufficient space will be left for a lateral movement in withdrawing the impression. Where separation has been previously gained between two teeth, the interproximal matrix introduced may be quite thick, but a very thin one, if no other can be placed, will be found advantageous.

One of the advantages of gutta percha over modeling compound or other substances that become rigid on hardening, is that it is slightly springy and will yield a little and resume the shape again; or, in other words, will yield a little and yet not be distorted.

The writer's method of getting a good sharp model from this impress is to settle the gutta percha down into some mixed plaster until a slight wall of the same stands up above the gutta percha all around. When plaster hardens, amalgam is carefully packed into the impress, the plaster acting as a retainer to keep amalgam together when pressed down. The amalgam makes a sharp, hard reproduction of the cavity, but should not be used or even removed for several hours after setting.

Such a reproduction may be imbedded in modeling compound for press work or swaging matrix for inlay, or burnishing may be done in it; or both.

(To be continued.)

# ORIGINAL CONTRIBUTIONS

## TOOTHsome TOPICS.

BY R. B. TULLER.

THE MARVELOUS RECOVERY OF A BROKEN LEG; OR, THE JOKER JOKED.

This is a true story. It is about Dr. Sporty. Dr. Sporty is a well known dentist and sports an automobile—cap. He is a “high roller”; though that broken leg last year came from both high and low rolling.

It takes money to be a high roller—somebody’s money— and Dr. Sporty seems to have it—at times. In fact, he don’t miss much that is going.

I don’t know whether he has a rich dad, married rich, or picks the winner.

He loves a joke—on the other fellow. He took two friends to dinner one evening. One of these has a great love for coffee—good, strong, black coffee. It occurred to Dr. Sporty to play one of his jokes. They went to a popular German restaurant where they have excellent coffee, and a bullet-headed manager.

Knowing the coffee lover would sure order coffee, Sporty sought out this manager on the q. t., while his friend was in the wash room, referred to the fact that he was a doctor (which the manager knew, having known him some time, and heard him always called “Doc”), told him that his friend in washing was a *coffee fiend*. At the puzzled look on the manager’s face he explained, “I don’t suppose you know it, but a genuine coffee fiend is a person who gets wild drunk on coffee; and a morphine fiend, cocaine fiend or whisky fiend isn’t in it. This man has been in an asylum for cure. He is cured if he has the backbone to let coffee alone; but I fear he will not. If he gets one cup of strong coffee he is liable to go wild and raise hades, smash dishes, furniture and people. I am his doctor and he is out of the asylum under my care, and I must insist that under no circumstances must he get a cup of coffee. The dum-fool will not believe it is coffee that makes a wild maniac of him, but it is. We doctors know all about it, though the cases are rare. He can drink milk, tea

or chocolate; but no coffee. He may ask for it, and even insist, but I want you to post your waiter that he must not have coffee if he does order it. Let the waiter forget to bring it, and keep forgetting. He may get sore, but my friend here and I will take care of that. Just you see that he don't get any coffee—see?"

Mr. Manager saw and was wise, and put the waiter wise.

They took seats at a table for three, in a crowded dining room, and of course our unsuspecting friend ordered coffee. The other two ordered chocolate to make the game good, and the Doc suggested to his victim that he better make his chocolate. "Coffee," he said, "*you* ought to know, is doing more harm to people than drugs or liquor."

And thereupon a warm discussion was raised, our friend, whom we will call Fred, contending for coffee and, of course, he let his order to the waiter stand.

When the dinner was served three cups of chocolate were brought. Mr. Fred shook up the waiter a bit, and ordered his cup changed to coffee—"good, strong coffee; understand?" The waiter bowed, disappeared, and was a long time absent. At length he was seen serving at another table. Fred growled and swore some, watched to catch the waiter's eye, and at length catching that optic, made an impatient gesture.

The waiter signaled that he knew what was wanted, and it was coming right away.

Another long wait and a very fussy Fred. In the meantime the meal progressed. Then Fred got hot. He glared about for the waiter and at length summoned the head waiter and indignantly told the tale of neglect. The head waiter was wise, too, and the manager stood watching afar off. The other two of the trio kept urging Fred to let the dum coffee go. But Fred was mad and began to say things out loud.

The manager then cautiously drew near, and as the kicks began to harrow up his sense of protecting the reputation of his house, he finally butted in and said, "Vell, vell, vat's der matter here?"

It is unnecessary to repeat all the sharp talk that was exchanged, but in the end the manager got his "Dutch" up and said, "Vell, let me dell you sometings; you nefer vill get no coffee here. I know vat you are; you are a coffee fiend. You vant to get some coffee drunk and raise hal mit my place. Nit, nein, neffer. You vas a tam fool. You vant to get put back in the asylum again, dond you? Vy dond

you listen to the advice of your friend, der doctor? He knows vat is good for you. Now, I dond vant any more talk about it; you go right away quick out and dond come back no more. I dond vant your batronage."

It took Fred some moments, as they were leaving, to comprehend the fact that he had been the victim of one of Doc Sporty's jokes, abetted by his friend.

He managed to articulate a few emphatic phrases during a fit of impotent rage, and then he dropped the matter, saying, "All right, Doc Sporty; I will get even with you if it takes ten years."

Some months later the trio were together again for a good time. The incident of the German restaurant seemed forgotten. This time it was not coffee that any of them sought, but real booze. They visited many booze joints and landed at length at the Pompeiiian room at the Annex. Here they were rich enough to order champagne, and you know what that will do to you? Maybe you don't? It stirs up every latent drop of all drinks that have gone before to do their worst.

Doc Sporty was far beyond thoughts of discretion; but Fred had several times slyly poured his glass into either Doc Sporty's or into the cuspidor. Doc Sporty was many lengths ahead of either of the others. In fact, he got to the point where he wanted to take a plunge in the Pompeiiian pool, and before anyone could stop him he did.

The pool is not deep and Sporty struck his head on the bottom. He was fished out and it was found that no serious harm had been done, except some skin off his dome. But he was down and out. A cab was summoned and the two friends, with the help of the waiters, managed to walk and slide Doc to it—out through the carriage drive.

"To the Athletic," was the order. When they got there Doc was dead to the world.

Next day, toward night, he came to. Where was he? In bed and in a very pleasant room, to be sure. But what was the matter with his head? Wow! How it did ache! Katzenjammer, sure enough. He tried to move. What was the matter with his leg? Gee! but that ached, too, and it was fast—couldn't be moved. His head was in bandages and as his hand stole down his leg he realized that it was not only bandaged, but was in a cast. Holy smoke! What had happened to him? He could not remember; but certainly something serious. Where was he? What time was it? Heavens! this was his busy day and no designs on the trestle-board for his assistants, his absence unaccounted for, and Mrs. Potter P. due at two o'clock for a

\$2,000 (?) bridge. Gee! he must get up. What time was it? Where was anybody? He heard a slight rustle and turning his head beheld—what? the sweet, sympathetic face of a professional nurse.

"Where in—well, excuse me—where am I? In a hospital?" quoth Doc, in alarm.

The nurse said, "No, not yet. They are discussing down stairs whether hospital or home is best. You are at the Athletic Club. Don't you know you were badly hurt here last night in the elevator? No? Well, I suppose you were knocked senseless, and it is a wonder that you are living. Now, tut, tut; don't talk. That is against the doctor's orders. You must keep very still and quiet or it may go bad with you. I'm glad you are awake, for I want to give you this medicine and a hyperdermic injection. 'Sh, there; you must not talk. Dr. Glydston will be back in a little while. Some of your friends are about also. Does your leg pain you?"

"It aches like—excuse me—it *aches*. Feels as though it had a heavy weight tied to it. I can't—"

"Sh! You must not talk; just answer with one finger raised for yes—two for no. You must not talk. Your head got an awful blow. Here, take this. I'll feed it to you by spoonfuls. I *guess* you had been drinking some last evening? This will brace you up some. Yes, it is a brandy milk punch. The doctor ordered it. Then I'm to give you a hyperdermic every half hour. There, tut, tut; don't try to talk. You must not get impatient, but remember you are badly hurt—fractured skull and broken leg. You'll do well to get up in six weeks. I presume, if it is safe, you will be taken to some hospital. There, there, now! quiet!"

But Doc Sporty blurted out, "Say, has this thing got into the papers? If it has, it will be all off with me, and Mrs. P—due at two today."

"Hush, hush! you must not talk. It is after four o'clock and it is all off with all your appointments for some time. Here are some of your friends."

At this point in came several club boys who had been put wise. They crowded about the bed, and even onto it, in their rather robust sympathy. One knocked carelessly against that broken leg. "Ouch! Get away from that leg!" said Doc. "Haven't you got any sense? Say, boys, *this is tough*. How did it happen? Who was with me? Where is Fred and Bob? Were they hurt? Did the elevator fall? How did we get here? *Get away from that leg, you d—beef you!*

Get away! You must think I'm iron. Lord, but you set that to jumping! Get away, all of you! You jar the bed. I'd as soon have a crowd of cattle around. *Get away from that leg, I say!* Where's that nurse?"

The nurse had stepped from the room for a moment. She came back in time to relieve the situation and the boys left; but they were not sedate or careful and one clumsily fell half over on the bed.

"Ouch! ouch! ouch!" cried Doc. "My leg! my leg! Heavens! don't let them fellers in again, they'll kill me. They're a dum rough-house lot, with no regard for anyone if they were dying. My! how that leg hurts!"

"But here you are talking and excited and the doctor said you must be quiet. You'll have to be taken to the hospital, I think. Now you must take your medicine and have your hyperdermic," said the nurse.

"There, now, you try and go to sleep," she added, after dosing him, and that's what he did.

Shortly afterward Dr. Glydston came in and, finding his patient sound asleep, he drew from his case a pair of scissors and without disturbing his victim—or *Fred's* victim, he slit the starch bandages down the broken (?) leg, released a weight that had been tied to the limb and hung down over the foot of the bed to keep it taut and in place, and then, leaving instructions with the nurse, took his departure.

It was another day when Sporty awoke, or partly aroused, but not to a full comprehension of all that he'd been through.

In fact, he thought, in a confused way, that he had dreamed of a bad accident—broken leg, etc. He found himself curled up in a heap, legs drawn up in comfortable place—all but a rough old, grater-like business around the right one. He felt to see what it was and then it came to him that, heavens! that leg was broken. He wiggled his toes and they wiggled all right. Gently he tried to straighten out, and he straightened all right. Then he felt the starch bandage or splint and it was all loose.

Slowly his thoughts began to move so that he put two and two together and comprehended that it made four. Holy mackerel! He sat up in bed, yanked away the splint and flung it out onto the floor. He was going to follow, but a scream from the nurse checked him.

"Here, here! Why, Doctor Sporty, you can't get out of bed with a broken leg!"

"Broken leg, h—! What does all this mean? Who put up this job on me?"

"What! isn't your leg broken? Well, I am just amazed! I've been imposed upon—I, a professional nurse! It is an outrage! Here I've been attending you for twenty-four hours and nothing the matter with you—except katzenjammer. It is *scandalous!* that's what it is! I won't stay another moment. Some one will pay for this," and in a fury of indignation she hastily picked up her things and left.

Doc got up and walked over to the mirror and took a survey of himself. About his head was an immense bandage. He began to take it off and spent five minutes ripping threads, taking out pins and unwinding.

Then he surveyed himself again, and addressed a little talk to the reflection before him that was anything but pretty.

"Well, Doc Sporty, you're a beaut! You are a d. f., that's what you are! and you're going out of here and take a good long ride on the water wagon. *You bet you will!*"

The sequel sums up about like this:

Dr. Woodbe Sporty, to the Athletic Club, Dr.:

To ten quarts Mumm Extra Dry (for the boys) . . . . .	\$ 40.00
Two boxes cigars (for the boys) . . . . .	20.00
Room with bath, two days . . . . .	10.00
Extra attendance . . . . .	10.00
Services of professional nurse (her bill attached) . . . . .	24.00
Turkish bath, massage, etc. . . . .	6.00
Broken cuspidors and other damage . . . . .	18.00
Drying, cleaning and pressing suit and putting shoes and other apparel in order . . . . .	6.50
Cab hire from Annex and for nurse and for doctor . . . . .	8.00
Meals for self and nurse . . . . .	12.75
	<hr/>
	\$155.25
Bill from Annex added . . . . .	25.00
	<hr/>
Total . . . . .	\$180.25





# EDITORIAL

In reviewing the dental literature it is interesting to note that the contributions on therapeutics have very materially increased in number as well as in quality. Writers upon this subject have apparently given more thought to the pathology of the disease than to the therapeutics itself. As yet the pathological lesions which are found in the oral cavity are far from having attracted as much attention as they should; consequently therapeutics has been almost entirely empirical. For this reason the therapeutics of dental pathology has taken a line that has led to a practice in which most dentists are dealing with agents which are, beyond question, many times as harmful in some instances as they are beneficial in others. It seems that almost every dentist considers an agent that would cure one alveolar abscess to be equally efficient in curing any other abscess; but if the pathology of each condition is well taken into consideration it will be observed that the treatment will necessarily, in a great many instances, have to be modified or changed. And what is true of alveolar abscesses may also be true of any other diseased condition of the oral cavity.

With the scientific investigation of oral bacteriology and bacteriology in general, there has also sprung into existence the empiricism of using almost any agent that an individual may consider an antiseptic or a disinfectant, without any regard to what might be its ultimate effect upon the mucous membrane, or teeth, or upon the food-stuff which must necessarily be masticated and freely mixed with the mucous and salivary secretions in order that it may be properly digested. Every few weeks or months there is a new agent introduced to the profession as an antiseptic or a disinfectant, good for pyorrhea alveolaris, soft and spongy gums, and the like. The question naturally arises, From what source do these remedies spring? Do they come from men like Miller, Black, Harlan, Buckley, and persons who are scientific thinkers and investigators in the interest and progress of dental science? Not by any means! They are usu-

ally the product of imagination and produced for the sole purpose, in the majority of instances, to sell.

The dental profession is soon to face the problem, in this respect, that the medical profession has long since had to deal with. The medical profession has now established a line of conduct which, if followed out by the American Medical Association, will soon bring to general recognition the fact that the healing arts are for the benefit of the people, and not for private individuals whose thoughts are never in the direction of the betterment of mankind, but whose only consideration is private gain.

Many of the remedies handed out to the dental profession for their use and recommendation have no indication as to what they really contain. It may not be so bad to use a remedy that at least publishes the formula of its contents, so that one might have an idea as to what he is really prescribing in a particular case. It has been the privilege of a good chemist and myself to go into the chemical analysis of some of these remedies to determine what they contain, and to learn something of their therapeutic efficiency in certain pathological processes. Some of the remedies contained none of the ingredients published upon the formula. Many times they proved, in the presence of saliva and secretions of the mouth, to become chemically changed in a way that would form a chemical compound not only inefficient, but poisonous.


The majority of mouth washes are such as to entirely prevent the digestion of starches. There are, however, some few mouth washes, and agents for other purposes, such as local anæsthetics, which contain exactly what they are said to contain in the formula, and which are so well compounded that if properly administered do not fail to give the desired results. But they are extremely few. Many of the remedies which have no formula published are, beyond question, the most absurd things that one could imagine, and show that an individual of any experience or knowledge of drugs could not put them together if he were honest in his endeavors. This in itself is sufficient to make any thinking dentist skeptical about the use of an agent when he has no knowledge of what it contains; furthermore, it is an admission on the part of the members of the dental profession of their lack of knowledge of therapeutics when they take a remedy they do not know anything about and use it on pathological lesions. Not only is it an admission that they are not aware of the condition and of the remedy that should be prop-

erly applied to such lesions, but that they are empirics and are amenable to the law for such practice.

If the American Medical Association continues to prosecute the field of work that it has started out to it will publish in its journal in the near future the formulas and contents of all agents put out for use in the field of the healing art; and not only will they reveal to the medical profession the absolute absurdity of some of its present practice, but it will also show to the dental world that many of the remedies now being used as empirical remedies are detrimental to the physiological processes of the digestion and deglutition of food stuffs.

It is quite essential that the dental profession practice their art, so far as therapeutic remedies are concerned, in a rational manner; the time is not far distant when all of the facts will be brought out pertaining to many of our remedies which are constantly being used empirically, and in the majority of instances, without foundation for scientific application.

G. W. C.



## Abstracts and Selections

### THE CONSTRUCTION OF AN ARTIFICIAL DENTURE UPON A METAL BASE.

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BY DR. L. P. HASKELL, CHICAGO.

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What is needed in the instruction in dental colleges for the construction of dentures upon metal plates, is the simplifying of methods. I have realized this as I have had under my instruction in the Post Graduate School graduates of most of the dental colleges of the United States. Most of these dentists have so little confidence in their ability to successfully construct a denture on gold or aluminum that they abandon the attempt and resort to vulcanite to the detriment of their patients.

The patient should be informed of a most objectionable feature of vulcanite dentures which is found in the long and well established fact that vulcanite is a non-conductor of heat, which causes a retention of undue heat under the plate and results in excessive resorption of the alveolar process, thus causing a flat and ridgeless jaw.

Where this condition exists, better results in fit and adhesion can be produced by the use of swaged metal plates; the process of which I will describe.

I insist on a plaster impression taken high over the cuspid eminence. The impression is coated with thin shellac so as not to produce a film; this is brushed over with a solution of soap and the excess of soap rinsed out before pouring the plaster. When the plaster has set remove the tray and cut away the surface of the impression to the cast and carefully split away the margins of the remaining plaster impression. The model should be so shaped that it will readily drop from the mold, and never lifted out. To do this heap some plaster upon a glass surface, place the cast upon it and press down until the vault will be about one inch thick, then with a spatula flare the sides. When the plaster has set, trim and shellac.

Now comes an important feature of the process! I make no use of vacuum cavities, and why? Every dentist knows that the

palate is hard, few seem to realize that it is the only portion of the upper jaw which never changes; whereas the alveolus is subject to change, extensively under vulcanite, and more or less under metal, but little as compared with vulcanite. If no provision is made for this change it is only a question of time when the plate is resting on the hard center and rocks. If the vacuum is used the anterior and posterior portions will rest upon and rock over the hard center. The remedy is to place what I call a "relief" over the hard surface. A thin film of wax (thin sheet wax) is placed from near the top of the alveolar ridge to within one-quarter of an inch of the posterior margin of the plate. The margin of the wax should be imperceptible. The model is then shellacked. The plate should be worn farther back than is usually made and with few exceptions can be worn with comfort.

I prefer to use oiled sand, as it is always ready for use, and can be used many times without re-oiling, for which lard or whale oil is used.\*

Use a molding flask large enough to pack the sand readily. Have one made of sheet iron three inches deep and five inches in diameter. For packing use a potato masher, using the handle, which should be trimmed so as to be straight around the sides and the large end on top.

I use Babbitt metal exclusively for the die, having introduced it into the laboratory more than fifty years ago after using zinc, type metal and tin. This is the only metal having all the five requisites for a dental die—which are non-shrinkage; hard, so as not to batter; tough, so as not to break; having a smooth surface and melting at a low temperature. But there must be a proper formula which is copper 1 part; antimony 2 parts; tin 8 parts. These should be put together at a foundry in a crucible and melted in the order named. This Babbitt can be had at all dental depots. In using this metal do not over heat so as to oxidize the tin.

Pure lead can not be poured upon Babbitt without danger of the two metals uniting. Reduce the melting point of the lead by adding tin one part to five parts of lead. This metal should not be poured as hot as it comes from the heater, but stirred until it begins to crystallize on the sides, when it is quickly poured upon the die, the die having been coated with prepared chalk, replaced

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\*The Chase Combination Sand can be purchased at the dental supply houses and is ready for use.

in the sand from whence it was taken, and the sand packed to where the margin of the plate will come and enclosed in a smaller ring or flask.

In making a pattern for the gold I use the Japanese tea chest lining. I prefer gauge 28, 22K gold. Anneal and drop in acid (sulphuric). Before annealing second time, wipe off traces of base metal.

The dies should be oiled to prevent the base metal adhering to the plate. The horn mallet with the long pointed end cut off to where it is three-quarters of an inch in diameter and filed round, is used at first over the tuberosities, then in center of plate. Do not hesitate at this time to cut a slit in front of the plate to top of the ridge; lap and swage, pry the lap apart, borax, swage and solder by placing the solder upon the inside and apply heat upon the outside. This simplifies the swaging and doubles the strength at the weakest point, and there is no valid reason for not cutting.

All plates should be worn as high as possible all around, but always higher over the cuspid teeth than elsewhere. To know where to locate the high points, use a pair of compasses and measure the teeth which you are to use, from the median line to center of cuspid, transfer the measurement to the die and from that to the plate and trim accordingly, dropping suddenly back of the high point to give free play to the muscles.

Try the plate in the mouth and see if the fit is correct and needs any further trimming. Wet the maxillary surface and place in the mouth, then with the finger use a pumping motion and watch for air bubbles at the posterior margin; if any appear place the plate on the plaster model and with a broad flat burnisher burnish closer where the bubbles appear, and if necessary scrape the plaster model a little at that place.

Take the bite with a rim of wax on the plate, telling the patient to place the tongue as far back as possible in the roof and close the jaws; then place in the articulator.

To wire the plate use 18 gauge annealed gold wire, beginning on the right side fit the wire for about one inch along the margin, and hold in place with two clamps. (These clamps are made of common iron wire of about 16 gauge; flatten the ends and with the pliers double the wire so as to form a loop.) Solder for a short distance, and then with the plate on the model adjust an inch and a half at a time with the pliers; remove from model, clamp and solder as

far as fitted, and so on until completed. Use only solder enough to attach the wire. Clean in acid and file the margin to a finish.

To attach the rubber, solder three loops on the ridge—one each side and one in front, or the loop punch may be used.

Teeth should always be arranged by the mouth as it is impossible to tell how they will look or whether the articulation is correct except by this method. Not only this, but the patient should be allowed to see them in the mouth while on the wax so as to be sure they are satisfactory.

There are more failures from faulty articulation than from any other cause. Never allow the six anterior teeth to come in contact. Be sure the two sides occlude exactly. If a second or third molar is tilted forward so as to be at an angle do not allow the upper teeth to meet it, as sooner or later the plate will be crowded forward. The pressure should be on the bicuspid and first molars.

In "waxing up" make it most prominent over cuspids and usually thin directly in front and finish up with slight festoon of gum over the teeth.

In arranging lower teeth in a full set, begin with the second bicuspid so as to secure correct closure of masticating surfaces. Then if necessary, select narrower fronts, as they are often too wide for the uppers.

The swaging of an aluminum plate is different from the swaging of gold. Use the aluminum which needs no annealing and of gauge 20. This is so soft that in an undercut case the plate is apt to tear where that portion of counter passes the bridge. To prevent this scrape away freely a portion of the counter die which closes into the undercut. On the lingual surface lay several folds of cloth to mallet upon. As a final swage lay six or more folds of wet paper over the plate.

The only sure method of attaching rubber to the aluminum is with the loop punch, making a row of eight loops near the margin and eight over the ridge. Aluminum makes an excellent plate, superior to vulcanite.

It is impossible to instruct mechanical processes by didactic teaching. It is only when the student is at the bench, tools in hand, and is shown how to use them by a competent demonstrator that he learns. The demonstrator should be compelled to keep close watch on the student and see that he is doing the work correctly and not wait until he has spent fruitless time trying to do something he does not comprehend.—*The Dentists' Magazine*.

# SOCIETY ANNOUNCEMENTS AND REPORTS OF MEETINGS

## **THE SOUTHEASTERN IOWA DENTAL SOCIETY.**

The Southeastern Iowa Dental Society will hold its annual meeting in Keokuk January 23-24.

### **WISCONSIN EXAMINERS.**

Governor La Follette has announced the following appointments: State Board of Dental Examiners—Dr. John Wright, of Milwaukee, Dr. Charles H. Seeger, of Manitowoc, and Dr. George C. Marlow, of Lancaster.

### **G. V. BLACK DENTAL CLUB.**

The G. V. Black Dental Club., Inc., of St. Paul, Minn., will hold a midwinter clinic in St. Paul, Minn., on February 22-23, 1906.

All practitioners are most cordially invited to be present. An interesting programme is being arranged. For further information address R. B. Wilson, secretary, 107 East Sixth street, St. Paul, Minn.

### **AMERICAN DENTAL SOCIETY.**

The next meeting of the American Dental Society of Europe will be held at Berlin, Germany, August 1, 2, 3 and 4, 1906. A most cordial invitation is extended to members of the profession to be present. An interesting programme is already assured and it is hoped to make this one of the most interesting and largely attended meetings in the history of the society.

GEORGE O. WEBSTER, Hon. Sec'y,  
Pariser Platz, I., Berlin, Germany.

### **WISCONSIN STATE BOARD OF DENTAL EXAMINERS.**

The next meeting of the Wisconsin State Board of Dental Examiners for examination of candidates for license to practice dentistry in Wisconsin will be held in Milwaukee, January 29, 1906, at the Hotel Pfister.

Application must be made to the secretary fifteen days before examination. The candidate must be a graduate of a reputable dental college, or have been engaged in the reputable practice of dentistry consecutively for four years, or an apprentice to a dentist



engaged in the reputable practice of dentistry, for five years. For further particulars apply to J. J. WRIGHT, Secretary,  
1218 Wells Bldg., Milwaukee, Wis.

#### **ELEVENTH ANNUAL CLINIC OF THE CHICAGO COLLEGE OF DENTAL SURGERY.**

The eleventh annual clinic of the Chicago College of Dental Surgery will be held at the college, Chicago, January 17 and 18, 1906. This meeting will be a reunion of the graduates of the college regardless of the fact that they are members of the Alumni.

A very excellent program is being arranged, consisting of papers with discussions, clinic and a banquet. Rates on all railroads one-third fare have been arranged for.

#### **OHIO STATE DENTAL SOCIETY.**

The fortieth annual meeting of the Ohio State Dental Society was held at Columbus December 5-7. About 300 members were in attendance and a successful meeting was had. The following officers were elected for the ensuing year: President, Dr. H. L. Ambler, Cleveland, Ohio; first vice-president, Dr. H. C. Brown, Columbus, Ohio; second vice-president, Dr. C. I. Keely, Hamilton, Ohio; secretary, Dr. F. R. Chapman, Columbus, Ohio; treasurer, Dr. Weston A. Price, Cleveland, Ohio; directors for three years, Dr. L. P. Bethel, Columbus, Ohio, Dr. J. R. Callahan, Cincinnati, Ohio, Dr. Henry Barnes, Cleveland, Ohio, and Dr. W. T. McLean, Cincinnati, Ohio.

Eighty new members were added to the roll.

#### **LA SALLE COUNTY DENTAL ASSOCIATION.**

About thirty-five members of the La Salle County Dental Association gathered in Ottawa November 7th to hold their annual convention and clinic. The afternoon was devoted to clinics and listening to papers read by Drs. Olmstead and Flannigan, of La Salle; Hughes, of Mendota; Taylor, of Streator; Moran, of Kinsman; L. E. Jordan and P. J. Wendel, of Ottawa.

Following the afternoon session a banquet was served in the dining room of the Clifton Hotel and at 8 o'clock the evening session was called and papers read by Drs. Taylor, of Streator, and Bandy, of La Salle.

At the conclusion of this session officers for the ensuing year were elected as follows:

President, A. T. Olmstead, La Salle; vice-president, J. A. Curry, of Streator; secretary, L. E. Jordan, Ottawa; treasurer, F. H. Barnett, Ottawa; librarian, Dr. Moran, Kinsman.

A decorative banner with the word "NECROLOGICAL" in the center. The banner is flanked by two crossed dental instruments, possibly a scalpel and a probe, and is adorned with ornate scrollwork and floral patterns.

## NECROLOGICAL

### DR. F. M. KELTNER.

Dr. Frank M. Keltner, age 51, a dentist at Muncie, Ind., died December 14th after an illness of seven weeks, of a complication of diseases. The deceased located in Muncie about twenty years ago and began the practice of dentistry.

### D. HOWARD CROUSE.

Mr. D. Howard Crouse, age 32, eldest son of Dr. J. N. Crouse, died January 3d. Mr. Crouse was editor of the *Dental Digest* and manager of the Dental Protective Supply Company. He was an ambitious and upright man, and to his untiring efforts is due the success of the *Digest*, and his death has caused a vacancy which will be difficult to fill.

### DR. C. S. BECK.

Dr. C. S. Beck, well known throughout Pennsylvania, died at his home in Wilkesbarre, December 25. The deceased was 77 years old and had been practicing dentistry in Wilkesbarre for the past fifty-five years. He was one of the founders of the State Dental Association. He was an 1888 graduate of the Dental department of the University of Pennsylvania.

### DR. C. P. DEMING.

Dr. C. P. Deming, for eighteen years one of the best known dentists of northern Wisconsin, is dead at Ashland of heart failure. He was born in Dane County. Dr. Deming was 1892 graduate of Chicago College of Dental Surgery and was a member of the Wisconsin State Dental Society.

### DR. FRANK S. GRAVES.

Dr. Frank S. Graves, pioneer dentist and well known citizen, is dead at Battle Creek, Mich., of paralysis. The end was expected and his family was at the bedside.

While working at his office he was overcome with a sudden illness. A carriage was called and before he could be taken home a stroke of paralysis occurred, affecting his entire muscular system.

Dr. Graves was seventy years of age and was associated with his son, Dr. F. P. Graves.

**DR. ALFRED L. PUCKEY.**

Dr. Alfred L. Puckey, one of the most popular young men of Waterville, N. Y., died December 18th of typhoid fever, aged 32 years.

Alfred L. Puckey was born in Obersonia, Pa., the son of Mr. and Mrs. John Puckey, who survive, as do two sisters and a brother. He located in Waterville eleven years ago upon his graduation from the Philadelphia Dental College. He at once formed a partnership with Dr. C. H. Bennett, the firm being known as Bennett & Puckey, and since that time he had practiced with signal success in that place.

**DR. M. H. CHAPPELL.**

Dr. M. H. Chappell, died at his home in Knightstown, Ind., December 14. He was stricken with apoplexy during his wife's absence in the evening, and was found early the next morning by a neighbor, unconscious and partially dressed. He had fallen in front of the grate. He did not revive. Dr. Chappell was sixty-four years old. He was one of the founders of the Indiana Dental College, vice-president of that school and a former member of the State Board of Dental Examiners. He was formerly Grand Master of Indiana Odd Fellows.

**DR. C. C. CHITTENDEN.**

Dr. Charles C. Chittenden died at his home December 15th, after an illness of several months' duration. Although not unexpected, his death comes as a shock to his many friends. He had gained national prominence as the champion of higher educational standards in the dental profession. As chairman of the committee on colleges of the National Association of Dental Examiners he has wielded an influence of lasting effect.

Dr. Chittenden was born among the hills of Nunda, Livingston County, New York, May 10, 1842. His father, Nelson Chittenden, an old Vermonter, was born in 1806. The county of Chittenden in that state received its appellation from the family name. His mother, Sophia B. (Fuller) Chittenden, was a native of Springfield, Mass., The blood of good old New England stock flowed in his veins.

During the first thirteen years of his life, Dr. Chittenden resided at the place where he was born. In 1855 he went to Madi-

son, Wis. Early in life Dr. Chittenden showed an inclination toward the profession of dentistry. This was the chosen work of his father. The son inherited the father's ability and, also, his strong personality. He learned the dental business when but a boy, and engaged in regular practice in 1863. That year he entered into a partnership with his father, which lasted until the latter's death, February 12, 1873. After this he practiced alone until 1905, when he formed the partnership with Dr. William H. Mueller, which has existed to the present time.

Dr. Chittenden came justly by his prestige in dentistry. He was sometimes called the dean of the dental profession. He was a man of education, not only in the line of his profession, but as a man of broad training. Before the war he attended the Madison high school and the University of Wisconsin. In 1866 he was graduated from the Ohio College of Dental Surgery at Cincinnati, and he was also a student at the Miami Medical College in Ohio.

He served as president and chairman of the committee on colleges of the National Association of Dental Examiners. In 1885, when the State Board of Dental Examiners was created by law, Dr. Chittenden was appointed a member of that body, and, with the exception of two years, has served continuously as its president. He was also president of the Madison Odontological Society, and one of the honors which lately came to him was the presidency of the National Dental Association. He was elected to that office at the national convention at Asheville, N. C.

#### **DR. CHARLES C. CHITTENDEN.**

In respect to the memory of Dr. Charles C. Chittenden, the Odontological Society of Madison adopted the following resolutions on December 16th:

*Whereas*, The hand of Providence has removed from us our honored member and president, Dr. Charles C. Chittenden; and

*Whereas*, In his decease we have lost one of the founders of our association, who, as president and as an active member until his death, evinced a warm interest in its welfare. As president of the National Dental Association, president of the National Association of Dental Examiners, and also president of the State Board of Dental Examiners for many years, he gave freely of his time and energy, sacrificing his health for the advancement and betterment of dental education, and who in many years of practice set before us a worthy

example of fidelity to his patients, and kindly interest in his younger professional brethren; therefore, be it

*Resolved*, That we desire to express to his bereaved family our sympathy and sorrow in their affliction and our admiration for the professional and personal qualities of our member; and

*Resolved*, That these resolutions be spread upon the records of our association, a copy sent the family of our departed brother and others to the dental journals for publication.

(Signed) W. H. MUELLER,

O. C. SCHMEDEMAN,

F. L. McCONNELL,

*Committee.*

#### DR. GEORGE I. ROBB.

Dr. George I. Robb, a dentist, died at his home in Philadelphia, November 27th, after an illness of almost a year.

Dr. Robb was a graduate of the Philadelphia Dental College, and had served as a demonstrator in that institution for several years, after which he began practice in the southern part of that city. His practice soon became very large and the close attention it demanded was the primary cause of his physical breakdown. He took an active part in the many organizations of his profession, and was known as an able writer. He was also an investigator along original lines, and was the inventor of several dental mechanical contrivances.

# MISCELLANEOUS

## YEARLY INDEX FOR 1904.

Due to a rush of other matter the 1904 index appears in this issue.

### TO SPUR ALUMINUM BASE PLATES.

Sharpen an old cone socket plugger point to your ideal spurring point, and use either in an automatic, engine or electric mallet.—*H. E Latcham, Brainerd, Neb., in Review.*

### PORCELAIN CROWN.

Diatoric teeth make good bicuspid crowns, especially for lowers. Bake a pin into the tooth and it can then be adjusted with or without a band and finished in the usual way.—*Oliver Martin, Ottawa, Canada, in Review.*

### SEALING ARSENIC IN BUCCAL CAVITIES.

Seal arsenious acid in shallow buccal cavities with wax, melting the surface around the margins with a hot, small spatula. A good preparation of wax for this purpose is made by using beeswax one part and resin sixteen parts.—*Oliver Martin, Ottawa, Canada, in Review.*

### FORM OF CAVITY FOR INLAYS.

Prepare your cavities so that you get what I term a lapped joint—not that the porcelain laps upon the outside of the tooth in any sense, but that the porcelain entering the cavity forms a lapped joint instead of a butt-ended joint, or so formed that the porcelain enters wedge-shaped into the cavity.—*W. T. Reeves, Chicago, in Review.*

### PROXIMAL CAVITY PREPARATION.

I am a great advocate of the occlusal step in proximal cavities. From the standpoint of convenience I find it an excellent thing, especially in the distal cavities of the molars; by extending a right angle step we can see into the cavity and be sure of a strong wall. It is difficult to get the anchorage in the buccal and lingual walls sufficiently strong and safe without some danger of tipping.—*Don M. Gallie, Chicago, in Review.*

**TO PROTECT INLAYS FROM MOISTURE AFTER SETTING.**

To prevent moisture reaching the inlay after setting it in place, cover with the surplus cement and firmly press a piece of tin-foil over the whole. This will adhere for hours, and is, of course, absolutely impervious to moisture. C. B. Rohland, *Dental Review*.

**TO STERILIZE HYPODERMIC NEEDLES.**

Place pure alcohol in the needle, then pass it through an alcohol flame; the alcohol will burn out, causing the needle to become aseptic and dry.—*Dental Quarterly*.

**TO CEMENT ARSENIC IN CAVITY WITHOUT PRESSURE.**

Mix the cement rather thin and place a small drop on a small bit of paper and carry the paper to the cavity with the pliers. Press to place with a burnisher. The paper facilitates adjustment to place and prevents cement adhering to instrument.—Claude B. Warner, Avon, Ill., *Dental Quarterly*.

**TO STOP PUNCTURE IN A RUBBER DAM.**

For punctures of the dam or to stop leakage around the lower anterior teeth, dry the dam with cotton, melt a little baselplate wax on a spatula and carry to points of leakage. This result will gratify you.—Arthur C. Preston, Elmwood, Ill., *Dental Quarterly*.

**DENTAL EXHIBIT.**

On March 27, 28, 29, 30, 1906, there will be held at the Chicago Auditorium the largest exhibit of dental goods and appliances ever attempted. There will be no lectures or papers, but experts in every line will give continuous demonstrations. There will be no admission fees or dues of any sort. A cordial invitation is extended to every dentist to attend. Particulars in the advertising pages.

**KING EDWARD'S HOSPITAL FUND.**

A meeting of the general council of King Edward's Hospital Fund for London, for the purpose of awarding grants to the hospitals and convalescent homes for the present year, was held on December 8th at 15 Portman Square. Among the awards then announced are: Guy's Hospital, £5,000 annual; £3,000 donation; £3,000 to debt. National Dental Hospital, £25 donation; to debt. Royal Dental Hospital of London, £500 donation; to debt.—*The Dental Surgeon* (London).

### THE NEW ANAESTHETIC.

In a recent issue of the *Clinique*, Dr. Theodore S. Proxmire refers extensively to somnoforme, a new anæsthetic, that has been thoroughly tested at the Bordeaux school, Paris, and throughout the British Isles. Somnoforme is a combination of chloride of ethyl 60 per cent, chloride of methyl 35 per cent, and bromide of ethyl 5 per cent. The administration of somnoforme is very similar to that of nitrous oxide. The average dose of two and one-half cubic centimeters has an average induction of thirty seconds and an average duration of seventy-eight seconds. When properly and carefully given there are practically no after effects whatever. There is a complete absence of respiratory troubles; the heart is slightly stimulated throughout the administration; the complexion remains normal and there is no cyanosis whatever.—*Med-Chir. Jour.*

### BRIDGE WORK WHERE SUPPORTS ARE WEAK.

Where the teeth are long the leverage will be very exacting. The best results may be obtained by not making the occlusion perfect, making more of a flat surface well roughened, on the principle of the millstone, so that the opposing teeth could glide laterally without any great amount of leverage. The grinding power is probably not quite as efficient, but the tendency to loosen the teeth or supports is done away with. Do not try to do too much with such cases in the way of perfect antagonism, but give the patient a fair grinding surface and the work will last much longer than where there is perfect occlusion.—W. Mitchell, London, England.

### OPERATIVE PROCEDURE FOR EXCAVATING SENSITIVE CAVITIES.

There is a distinct difference in the sensitiveness, dependent on the manner in which the dentine is cut. Success in many cases may be achieved by cutting the dentine in the following manner: Instead of using the usual burr and cutting transversely, cut vertically to the axis of the dentine, and with a drill with a flat point cut a series of small holes, and the operation can then be continued with half the pain that would be otherwise occasioned. What generally troubles most people is to get an anchorage, but by drilling a series of small holes the dentine may be cut with very little pain compared to that caused by using a drill in the ordinary manner.—H. L. Schaffner, Florence, Italy.



THE ANTISEPTIC BABE.

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BY EDNA KINGSLEY WALLACE.

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We can sterilize his bottles, we can boil his little mug;  
We can bake his flannel bandages and disinfect the rug  
That envelops him when he partakes of medicated air,  
But there's one impossibility that leaves us in despair—  
And a not unjustifiable one, you will allow—  
To wit: we fear 'twould never do to sterilize the cow!

So we feed the baby Medicus's hygienic dope,  
And we wash his face with germicidal antiseptic soap;  
And we brush his little toofums—or the place where they will be—  
With diluted glyco-thymoline, most sanitari-lee;  
Then despair to see a milky effervescence supervene  
On a countenance which theretofore was surgically clean.

Thus, although we strive to conquer every septic circumstance,  
Yet we greatly fear a ghastly alimentary mischance;  
For albeit we bake and boil his things, and scrub and soak and souse,  
As if in his anatomy forever cleaning house,  
The recklessness with which he sucks his vagrant tiny thumb  
Imperils much his antiseptic little tum.

We are careful of his hours, we are thoughtful of his toys;  
We are mindful of his sorrows, and judicious of his joys;  
We are prayerfully considerate of needful discipline,  
Of our little "Mother's Handbook" and the precepts writ therein;  
And we strive to render sterile all designed for mouth or tum,  
But one frightful danger menaces—we can not boil his thumb!

—*Harper's Magazine*, August, 1905.

## PERSONAL AND GENERAL

**Fire.**—The office of Dr. C. D. Richey at York, Pa., was totally destroyed by fire December 1, with loss of \$2,500.

**Hull-Walters.**—Dr. John R. Hull of Adrian, Mo., and Miss Josephine Walters were married at that place recently.

**Bronson-Miller.**—Dr. J. L. Bronson of Reinbeck, Iowa, and Miss Sophia Miller of Waterloo were married December 12.

**Dissolved.**—Drs. Sharp & Kyle of Kewanee have dissolved partnership. Both will remain in Kewanee, with separate offices.

**Robbed.**—Dr. T. J. Houston of Peoria, Ill., suffered the loss of gold and materials to the extent of \$400 through burglars December 17.

**Dr. Franklin S. Graves.**—Dr. Franklin S. Graves, the oldest dentist in Battle Creek, died December 17 of paralysis, aged 71.

**Fire.**—Dr. Hamilton of Two Harbors suffered considerable damage by fire which destroyed the building in which his office was located.

**Dr. J. Z. McBride.**—Dr. J. Z. McBride died at his home in Burgettstown, Pa., December 22, of complication of diseases, aged 58 years.

**Knapp-Nickel.**—Dr. L. A. Knapp of Chenoa, Ill., '03, N. W. U., and Miss Lillian V. Nickel, also of Chenoa, were married at that place December 27. THE AMERICAN extends congratulations.

**Kind to the Dentist.**—New Dentist (in Frozen Dog)—“Will you take gas?” Bronco Bill—“Will it hurt much if I don't?” Dentist—“It will.” Bronco Bill—“Then, stranger, fer your sake I think I'd better take it.”—*Life*.

**Dr. W. D. Mullin.**—Dr. W. D. Mullin, a dentist at Downs, Kas., for more than twenty years, died suddenly of heart disease December 13, at a livery barn while getting a team ready to take a drive.

**Dr. J. J. Bodwell.**—Dr. J. J. Bodwell, for about eighteen years a practicing dentist at Rantoul, Ill., shot himself near Winamac, Ind., December 12, death resulting from the wound.

**Scandinavian Dental Elect.**—At the annual meeting of the Scandinavian-American Dental Association of Chicago the following officers were elected: President, Dr. C. E. Johnson; vice-president, Dr. O. M. Ulvestad; secretary and treasurer, Dr. John Nelson. Dr. O. T. Johnson, Dr. P. W. Thorelius and Dr. Maurice Schycker were elected directors.

**Dental Depot Burns.**—Hettenger Bros., of Kansas City, dental dealers and publishers of the *Western Dental Journal*, suffered a considerable loss through fire which destroyed their depot January 6.

**Jefferson-Union County Society.**—A joint meeting of the Jefferson and Union County District Dental Societies met at Carbondale December 17.

The Union district society includes about forty dentists of the extreme southern section of the state, including those of Jackson county, the society being organized about a year ago. The Jefferson district society includes that many or even more of the dental fraternity from the section tributary to Mt. Vernon. Among the special numbers on the program were talks by Drs. C. C. Corbett of Edwardsville, J. W. Ritter of Charleston, and Arthur D. Black of Chicago.

**Clinic at Cedar Rapids.**—The Cedar Rapids Dental Society gave a clinic December 16. Dr. J. E. Rose of Vinton illustrated porcelain inlay crown work; Dr. C. M. Work of Ottumwa, porcelain inlay; Dr. A. W. Starbuck of Iowa City, porcelain inlay. In addition to this a number of the Cedar Rapids dentists gave exhibitions in porcelain crowns and other kind of work.

**Fraternal Dental Society of St. Louis.**—The Fraternal Dental Society, at a meeting at the Jefferson hotel December 19 elected officers, as follows: Dr. E. P. Dameron, president; Dr. S. H. Voyles, vice-president; Dr. Richard Summa, secretary, and Dr. W. E. Brown, treasurer. For the executive committee Drs. Edward E. Haverstick, I. A. Voss and W. H. Simpson were named. Dr. Summa gave a talk on "Incidents of Office Practice."

**Sangamon-Menard Society.**—The regular monthly meeting of the Sangamon-Menard Dental Association was held December 8 at Springfield. A paper on "Pulp Capping," read and prepared by Dr. Trinkaus of Elkhart, formed the principal feature of the meeting, which was concluded with a disposal of a number of routine matters of business.

**Dental Examiner Sentenced.**—Severe punishment was given by a jury in Judge Smith's court to Jacob Symser and Edward Flynn, who have been on trial on charges of forging dental certificates, in a verdict returned December 7. Each was found guilty and punishment was fixed at an indefinite term in the penitentiary. The defendants were also ordered to pay a fine of \$300 each. A motion for a new trial was entered by counsel for the defense after the verdict had been read.

**Luzerne-Lackawanna Societies.**—The annual meeting of the Luzerne and Lackawanna Dental Society was held December 19. Reports of committees were heard and the following officers were elected: President, Dr. W. A. Spencer of Carbondale; vice-president, Dr. William Kelley of Wilkes-barre; secretary, Dr. Donnegan of Scranton; treasurer, Dr. George Knox of Scranton. The next meeting of the society will be held in connection with the annual banquet, which will be held January 23.

**Dr. Dodez Ill.**—Dr. E. Wright Dodez is seriously ill of typhoid fever in London, Eng. Dr. Dodez is the manufacturer of Oxa Para, and is introducing it abroad, he leaving home only a few weeks ago. Mrs. Dodez was in Champaign, Ill., when the news came. She left at once for New York City and will sail for London on the first steamer.

**A New Journal.**—The first issue of *The Dentists' Magazine* has appeared, and is a credit to the gentlemen whose names appear as publishers and editors. The journal is in four departments, and has an editor for

each. Dr. W. T. Jackman has charge of the Operative department, Dr. Geo. H. Wilson the Prosthetic, Dr. W. G. Ebersule the department of Humanitarian Dentistry, and Varney E. Barnes, Orthodontia. This arrangement has been a success with THE AMERICAN and will through the ability of these gentlemen add much to the advancement of dental literature. The magazine is published by the Cogswell Dental Supply Company, and the business manager, Albert M. Pearson, whose popularity and enterprise insures success for the *Dentists' Magazine*.

**Dr. R. H. P. Lulon.**—Dr. R. H. P. Lulon, few years ago one of the best known dentists of northern Minnesota, died in the Detroit hospital and was buried from the Masonic hall. He had been ill for many years and unable to practice his profession. He lived at Fergus Falls before moving to Detroit.

**The Ohio Supreme Court** has handed down a decision declaring the law which created the state board of dental examiners to be constitutional. In the future, under the judgment, all persons, unless the law be repealed, will have to stand an examination and receive a certificate before entering upon the practice.

**Lee-Whiteside Society.**—The semi-annual meeting of the Lee-Whiteside County Dental Society was held in Sterling, Ill., December 5. The meeting was attended by a large number of dentists of the two counties. Several papers were read. The following officers were elected: President, Dr. Stevens, Dixon; vice-president, Dr. Hopkins, Sterling; secretary, Dr. Shannon, Sterling.

**Winnebago County Dental Society.**—The second annual meeting of the Winnebago County Dental Society was held December 8 at Rockford. Stephensen, Boone, Ogle, McHenry and Winnebago counties are included in the membership. Dr. F. A. Weld of Belvidere and Dr. T. E. Fowler of Rochelle presented papers. President, Dr. F. A. Weld, Belvidere; vice-president, Dr. T. E. Fowler, Rochelle; secretary, Dr. A. B. Culhane; treasurer, Dr. M. L. Hanford.

**Champaign-Danville Society.**—The Champaign-Danville District Dental Society held its regular meeting December 4 at Champaign. Clinics were given by Drs. J. C. Pogue and J. A. Brown of Champaign, Dr. F. O. Sale of Urbana, and Dr. Wilson of Danville. Dr. J. Heaton of Hoopston read a very interesting paper at the evening session. A discussion of the paper which followed was led by Dr. McLain of Danville. The following officers were elected: Dr. Miller of Hoopston, president; Dr. C. C. VanScoyoc of Champaign, vice-president; Dr. Bush of Rossville, secretary; Dr. C. P. Howard of Champaign, treasurer; Dr. F. M. Conkey of Homer, librarian; Drs. J. A. Brown of Champaign and F. O. Sale and Robert Wallis of Urbana, program committee.\*

**Chapter of Xi Psi Phi Fraternity Is Organized at Kansas City.**—For the first time in the history of Greek letter college fraternities in the

west, a chapter comprising exclusively members of the profession of dentistry has been instituted. The installation of the Kansas City branch of the Xi Psi Phi fraternity was accomplished at the Midland hotel December 6. Only students of the Western Dental college of that city were admitted to membership and the rolls at the beginning comprised twenty-five names. Dr. W. Montgomery of Chicago was installing officer.

**Naval Dental Bill.**—Representative Brownlow has introduced in congress a bill for a corps of dental surgeons attached to the Bureau of Medicine and Surgery of the navy. He says the dental corps should be divided into three grades—"assistant dental surgeon," "passed assistant dental surgeon," and "dental surgeon"—who shall have the same rank, pay and allowance as corresponding grades of the medical corps. The bill provides that the dentist now employed at the Naval Academy shall not be displaced by the operation of this act.

**National Capital Dental Society.**—At a meeting of the National Capital Dental Society held December 2, a large attendance of the dentists holding membership in the society being present, the following officers were elected by ballot: President, Dr. Starr Parsons; vice-president, Dr. F. F. Daly; recording secretary, Dr. C. W. Cuthbertson; corresponding secretary, Dr. W. B. Daily; treasurer, Dr. George S. Waldo; librarian, Dr. Z. W. Alderman.

**Reciprocity With Germany in Bogus Diplomas?**—To what extent has what the state department at Washington believes to be a fake dental school at Strassburg, Germany, flooded Iowa and other states with bogus certificates? In October a man giving the name of Hans Bolte, evidently a German, and his wife solicited the law firm of Parrish, Dowell & Parish to secure for him, as his legal representative, a certificate to practice dentistry in Iowa on the basis of a certificate of graduation from a dental school in Strassburg. The lawyers communicated with the German consul at Chicago to find out whether the institution was of good repute, a purely formal proceeding to make presentation of Bolte's paper to the state dental board in regular form. The consul at Chicago forwarded the inquiry on to Kehl, Germany. The American consul at Kehl, being informed of the inquiry, has sent the state department at Washington a full report of the investigation, which was disastrous to the interests of Bolte and the Strassburg institution, which is denounced as a fake.—*Fort Dodge Messenger*.

**Removals.**—Drs. J. C. Pogue, from Champaign, Ill., to Findlay; Oscar Heins, N. W. U., to Carrollton, Mo.; James New, from Carrollton, Mo., to Kansas City; Frank Timmerman, from Chicago to Sterling, Ill.; — Bisco, from Peoria, Ill., to Fort Worth, Texas; F. W. Horton, from Eagle Grove, Iowa, to Sioux City; W. C. Sensibaugh, from Port Byron, Ill., to East Moline; J. W. Murray, from Maquoketa, Iowa, to Preston; H. M. Yople, from South Bend, Ind., to Kalamazoo, Mich.; Clyde L. Stapleton, from Meredosia, Ill., to Bloomington.

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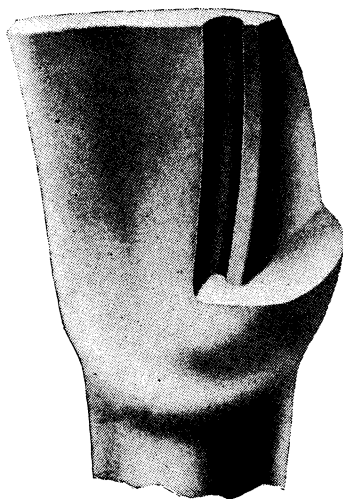
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## INDEX TO ADVERTISEMENTS.

	Page
Acestoria .....	18
Adams Mouth Prop.....	45
Adrian Spear Rutherford .....	38
American Cabinet Co., Two Rivers, Wis.....	17
American Hard Rubber Co., New York .....	20
Antidolar Mfg. Co., Springfield, N. Y.....	21
Antikamnia Chemical Co., St. Louis.....	26
"Bargains" .....	27, 28
Burke's Dental Specialty Co.....	29
Buffalo Dental Mfg. Co. ....	4
Caulk, The L. D. Co., Philadelphia, Pa.....	33, 42
Chicago College of Dental Surgery, Chicago, Ill.....	43
Clark, A. C. & Co., Chicago .....	69
Cleveland Dental Mfg. Co., Cleveland, O.....	9
Crocker, Samuel A. & Co.....	48
Dayton Dental Supply Co., Dayton, O.....	36
Dee, Thomas J. & Co., Chicago, Ill.....	35
Dental Suction Co., Loudonville, O.....	26
Dentists' Card Account System .....	53
Dentists Supply Co., New York.....	58 to 65
Donaldson Flask .....	10
Electric Sterilizer Co., St. Paul, Minn.....	45
Excel Chemical Co.....	8
Extraordinary Offer.....	11
Frink & Young.....	12
Goldsmith Bros., Chicago, Ill.....	Outside Back Cover and 25
Green Chemical Company, Dr., Ionia, Mich.....	44
Hall & Ruckel, Sozodont.....	00
Hall, W. R. & Son .....	39
Hare's Dental Device Co., Dr.....	31
Hisey Dental Mfg. Co., St. Louis, Mo.....	39
Hull Carbolated Dental Disk .....	54
Indiana Dental College, Indianapolis, Ind.....	45
Ivory's Specialties .....	32
Jennelle Chemical Co.....	21
Kirkwood Mfg. Co.....	19
Kress & Owen Co., New York.....	00
Lambert Pharmacal Co., St. Louis .....	000
Lauderdale Annealer .....	6
Lauderdale Crown System.....	52
Lavoris Chemical Co., Minneapolis, Minn.....	13
Lennox Chemical Co.....	0
Lindon Cereal Coffee Co., Benton Harbor, Mich.....	47
Louisville Dental Laboratory & Mfg. Co.....	51
Michigan Drug Co.....	54
Mounted Carborundum Points.....	51
National Dental Improvement Co., Mt. Vernon, O .....	31
Nelms, Henry & Sons, Philadelphia, Pa.....	68
Nolde Dental Mfg. Co., John T., St. Louis .....	34
Oakland Chemical Co.....	Second Cover
Patterson Dental Mfg. Co., M. F., St. Paul, Minn.....	15
Paragon Dental Mfg. Co. Racine, Wis.....	29
Peck Correspondence School, Minneapolis, Minn.....	52
Permaneo .....	49
Post-Graduate Course Free.....	7
Pustolene, J. A. Sprague.....	47
Randall Faichney Co.....	37
Ritter Dental Mfg. Co.....	22
Sanitol Company.....	1
Shenkenberg, Eugene, Racine, Wis.....	41
Smith, Lee & Son, Pittsburgh, Pa.....	14
Somnoforme, E. de Trey & Sons, New York.....	66, 67
Spear-Marshall Co., Chicago .....	16
Steere, Geo., Chicago.....	20
Sterion White Alloy Co., Chicago, Ill.....	40
Tenax.....	45
Teague Supply Co., Augusta, Ga.....	55
Traun Rubber Co., New York .....	5
Twentieth Century Teeth .....	56 to 65
University of Illinois.....	23, 24
Webster Dental Co., Buffalo, N. Y.....	42
Wedgelock Tooth Co.....	30, 50
Windsor Dental Company, Chicago.....	20
Williams, J. A.....	41, 48

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